CL5000 Series

(CL5000, CL5500)

Service Manual

(English)

Rev. 2010. 06. 25

Table of Contents

1. Proper Operation 5
    1.1 Introduction 5
    1.2 Model and Specificationl 6
    1.3 Environmental Conditions & Safety 7
    1.4 Leveling and Footer Location 8
    1.5 Power Outlet and Requirements 11
2. Classification 13
    2.1 Scale Overview 13
    2.2 Display and Indicators 15
    2.3 Printer 17
    2.4 Commuication 20
    2.5 Key Pad 22
3. Getting Started 24
    3.1 Sealing Method 24
    3.2 Installation of the Label Roll 24
    3.3 Turning Power On/Off 27
    3.4 Program Menu and Tree 28
        3.4.1 How to access PROGRAM MODE 28
        3.4.2 Program Menu Tree 29
        3.4.3 Calibration Menu Tree 31
4. Calibration Mode 32
    4.1 Calibration 32
        4.1.1 Span Calibration (Menu Code 8110) 34
        4.1.2 Span/Zero Fine Adjust (Menu Code 8120) 36
        4.1.3 Capacity & Units (Menu Code 8130) 38
        4.1.4 Gravity Constant (Menu Code 8140) 39
        4.1.5 Percent Calibration (Menu Code 8150) 40
        4.1.6 Linearity Adjust (Menu Code 8160) 41
        4.1.7 Zero & Tare Setting (Menu Code 8170) 42
    4.2 Factory Setting (Menu Code 8180) 43
        4.2.3 A/D Initialize (Menu Code 8183) 43
        4.2.4 Linearity Fine Adjust (Menu Code 8184) 44
        4.2.5 *Hysteresys Calibration* (Menu Code 8185) 45
    4.3 Memory Clear 47
        4.3.1 Clear Report (Menu Code 8211) 47
        4.3.2 Clear All PLU (Menu Code 8212) 47
        4.3.3 Clear All Table (Menu Code 8213) 47

4.3.4 Flash All Clear (Menu Code 8214) 47
4.4 Scale Type 48
4.5 Printer Hardware 49
4.5.1 Print Mode (Menu Code 8310) 49
4.5.2 Label/Ticket Size (Menu Code 8320) 49
4.5.3 Sensor Calibration (Menu Code 8330) 50
4.5.4 Sensor & Motor (Menu Code 8340) 50
4.5.5 Print Intensity (Menu Code 8350) 50
4.5.6 Adjust Feed Length (Menu Code 8360) 50
4.5.7 Label Pre-print (Menu Code 8370) 50
4.5.8 Printer Initialize (Menu Code 8380) 50
4.6 Network Options 51
5.6.1 Enable Interface (Menu Code 8410) 51
4.7 Self Test 51
4.7.1 Display Test (Menu Code 8510) 51
4.7.2 A/D Test (Menu Code 8520) 51
4.7.3 Keyboard Test (Menu Code 8530) 52
4.7.4 Chess Print (Menu Code 8540) 53
4.7.5 Printer Sensor Test (Menu Code 8550) 53
4.7.6 Memory Information (Menu Code 8560) 54
4.7.7 Firmware Version (Menu Code 8570) 54
5. Servicing & Parts Replacement 55
5.1 Platform Safety Overload Adjustment 57
5.2 Removing the Upper Case 59
5.3 Main board Replacement 62
5.4 Power Supply Replacement 63
5.5 Load Cell & AD Converter Replacement 65
5.6 Print Assembly Replacement 67
5.7 Display Replacement 68
5.8 Keyboard Replacement A,B(with/without breaking sealing) 69
6. Installing Options 71
6.1 Installing Ethernet Card 71
6.2 Installing Wireless Lan Card 72
6.3 Installing Memory Expension Card 72
7. Update 73
7.1 F/W update (CL5000) 73
7.2 F/W update (CL5500) 75
8. Schematic & Diagrams 76
8.1.1 System Block Diagram (CL5000-B,P,R,G,S,H) 76

8.1.2 System Block Diagram (CL5500-D) 77
8.2.1 Connection Diagram (CL5000-B,P,R,G,S,H) 78
8.2.1 Connection Diagram (CL5500-D) 79
8.3 I/O Pin Connection (CL5000-B,P,R,G,S,H) 80
8.3 I/O Pin Connection (CL5500-D) 81
9. Exploded Views 82
9.1 Scale Assy (B,P,R,G-type) 82
9.2 Scale Assy (H-type) 84
9.3 Body Assy (B,P,R,G-type) 85
9.4 Body Assy (H-type) 86
9.5 Platform (B,P,R,G-type) 87
9.6 Main Frame (H-type) 88
9.7 I.O cover (H-Type) 89
9.8 Upper Case 90
9.9 Pole display (R-type) 91
9.10 Pole display (P-type) 92
9.11 Pole display (G-type) 93
9.12 Printer Assembly 94
9.13 Printer Header Assemble 95
9.14 Cartridge 96
9.15 Tray assembly (B,P,R,G-type) 97
9.16 Tray assembly (H-type) 98
9.17 Lan card 99
9.18 Self-service Type 100
9.19 Double Body Type – (Head cover A'ssy) 101
9.20 Double Body Type – (Cartridge A'ssy) 102
9.21 Double Body Type – (Base bracket A'ssy) 103
9.22 Double Body Type – (Door A'ssy) 104
9.22 Double Body Type – (Head A'ssy) 105
9.23 Double Body Type – (Tray A'ssy) 106
9.24 Double Body Type – (Upper A'ssy) 107
9.25 Double Body Type – (Platform A'ssy) 108
9.26 Double Body Type – (Body A'ssy) 109
10. Part List 110
10.1 Electronic 110
10.2 Mechnical 110
11. Revision 111

1. Proper Operation

1.1 Introduction

Thank you for purchasing the CAS CL5000 series price computing printer scale. We have designed this equipment with advanced features, high quality construction, and user-friendly menu driven programming. We are confident that you will find the CAS CL5000 series scale will meet all of your most demanding needs.

Sales data is easily acquired through many of the available reports which are quickly accessible through the on-screen menus. Also available: High speed printer (4 inch per second), 53 preset keys (106 using the SHIFT key or double click) per department, and several operation modes that enable you to control & access to the scale.

For larger operations, CL5000 series has in-store network that can link-up to 32 scales. RS-232 port, ethernet port, and wireless connection enable to export and import program data for time-save mangement. On-time operation possible because of PLU and all other data files are kept locally in each scale's memory bank; the scale's speed is the same as a stand-alone unit in a network.

The CL5000 series can use with both ticket and label. Auto measuring system enhances use any types of roll paper. (Just entering a label's length and width dimensions, you can use practically any roll) Also cartridge loading mechanism helps to refill the label roll easyly. Also you can print logos, templates, Nutri-Facts panels, ingredient messages, advertisement lines, and more to promots your store.

Remember, for proper installation and maintenance please read the CL5000 series Manual before use. A wide variety of supplies, accessories, and expansion options are available through CAS Corporation for whatever your new and increasing demands may require

The CL5000 series also comes with the SP-2 software package. This software runs on any PC using the 95/98/2000/XP Windows OS. You can design your own label formats on your computer screen and save them to your hard drive. With this percise interface, the labels you see on-screen appear exactly on the printer. You can also manage all of the CL5000's programs and options like pricing, PLU programming, etc. You can upload data from a CL5000 series or download data. This is ideal solution for an emergency scale backup system. All this and many more features are packed into the SP-2 software package. SP-2 software package enhances your business next level.

1.2 Model and Specificationl

Model	CL5000 Series					
Capacity	6Kg	15Kg	30Kg	15lb	30 lb	60lb
Interval	1g/2g	2g/5g	5g/10g	0.002lb/ 0.005lb	0.005lb/0.01lb	0.01lb/0.02lb
Max Tare	-2.999Kg	-5.998Kg	-9.995Kg	-5.998lb	-9.995lb	-29.99lb
Display	B,P,R,S,H-Type	24 digit VFD + Graphic LCD				
	G-Type	Graphic LCD				
	D-Type	25 digit LCD + Graphic LCD				
	Tare: 4 digit Unit Price: 6 digit	Weight: 5 digit Total Price : 6 digit		Weight: 5 digit Total Price : 7 digit	Unit Price: 6 digit	
Zero Pass Range	1~50% (default 10%)					
Re-Zero Range	1~50% (default 2%)					
Overload Range	Max Capa. ~ Max Capa. + 255d (default Max+9d)					
A/D Conversion Rate	Approx. 8/sec					
Measurement type	Load cell					
Platter type	SUS					

Key	B-Type	PLU Key : 48, Function Key: 36	P,R,G, H-Type	PLU Key : 72, Function Key: 36	D-Type	PLU Key : 72, Function Key: 40
Speed Key		PLU Key : 96		PLU Key : 144 (SELF-SERVICE : 100)		PLU Key : 144

Data Table			
	PLU	1~99999	3000
	Ingredient 510 Char	1~999	999
	user defined Barcode Format	1~99	99
	Department	1~99	99
	Tax Type	1~9	9
	Group	1~99	99
	Clerk	1~99	99
	Discount	-	99
	Origin	1~499	499
	Traceability	1~99	99
	Slaughter House	1~99	99
	Cutting Hall	1~99	99
	Traceability Country	1~99	99
	Label Format	Default :45, User:20	
	Bitmap	14	14
	Customer	1~99	99
	Quantity Symbol	1~8	8
	Scroll Message	1~9	9
	Pay Type	0~8	8
	Sales Message	1~99	99
	Nutrifact	1~500	500
	Tare Table	1~99	99
	Currency	1~4	4

Report	X1/X2, Z1/Z2, Scale, PLU, Misc. PLU, Group, Department, Hourly, Clerk Report
Printing Resolution	202 dpi
Label Size	Width: 40mm ~ 60mm, Length: 30mm ~ 120mm
Barcode Type	EAN13, EAN13A5, EAN8, I2OF5, UPCA, UPC13, CODE39, CODE93, CODE128, CODABAR,
Font	Offer varoius sizes of label format, e.g Small, Middle, Large Size, and on the label format, also offers varioous types of fonts, such as Italic,Bold,Underline,Throgh Line, Double through line, Reverse,shadow, outline etc.
Printer Type	Direct Thermal Print

Dimensions	B-Type	408 x 432 x 173 mm	B,P,R TYPE Tray : 382 x 247 mm H TYPE : 420 x 250 D TYPE : 380 x 270 mm
	P,R-Type	408 x 493 x 542 mm	
	H-Type	423 x 174 x 822 mm	
	D-TYPE	464 x 396 X 612	

1.3 Environmental Conditions & Safety

1) Please avoid the following hostile conditions

- Temperatures below or exceeding:
  -10° C ~ 40° C (14° F ~ 104° F)
- Excessive vibration
- Wind or fans functioning in direct contact with weighing platform.
- Direct sunlight
- High humidity
- Ungrounded electrical outlet
- Unstable or flimsy surface
- Shared electrical outlet
- Dust or dirt
- Poor ventilation

2) Environmental Protection

The scale should be installed in a dry and liquid free environment. When the scale is installed in a high humidity or wet-type environment, be sure to avoid spilling or spraying directly on any surface of the scale.

3) Personal Safety

It is very important to be aware of personal safety whenever maintaining or operating this equipment. We have tried to place warning labels and other indicators at the actual location on the equipment where the danger is most likely to occur. Warnings and cautions that are necessary for the safe operation of the scale are contained in this manual. Please, make sure to read carefully ALL warnings and cautions before operating the scale.

4) Observe the following safety precautions

- Shut the scale OFF and unplug the scale whenever you are changing the label roll or whenever working in the printer bay.
- The outlet that the scale is plugged into, should be properly grounded.
- Whenever connecting or disconnecting ANY cables from the scale, be sure to hold the cables by the end connector. Failure to do so may cause a short circuit.
- Maintain a static-free work area.
- The outlet used must have the proper voltage ratings.

1.4 Leveling and Footer Location

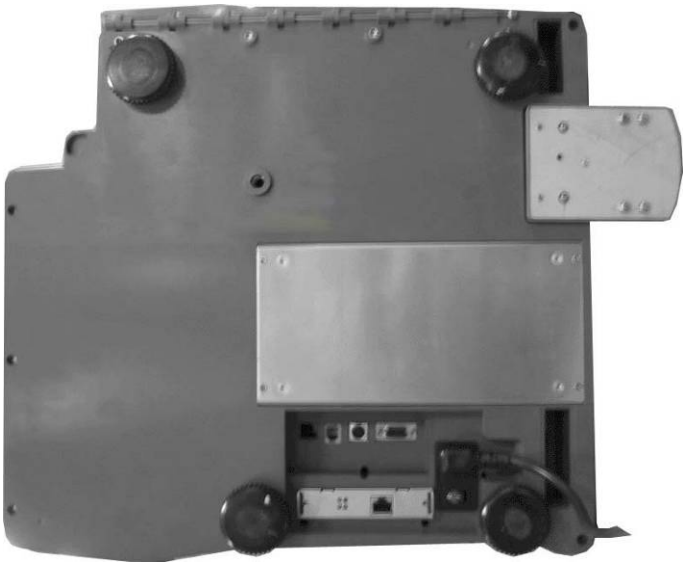
1) Location

This scale must be placed on a flat and stable surface. Please keep the scale away from the direct path of oscillating fans, ventilation systems, or strong drafts as these air disturbances can be picked-up by the scale’ s very sensitive weighing platform and may cause incorrect weight readings.

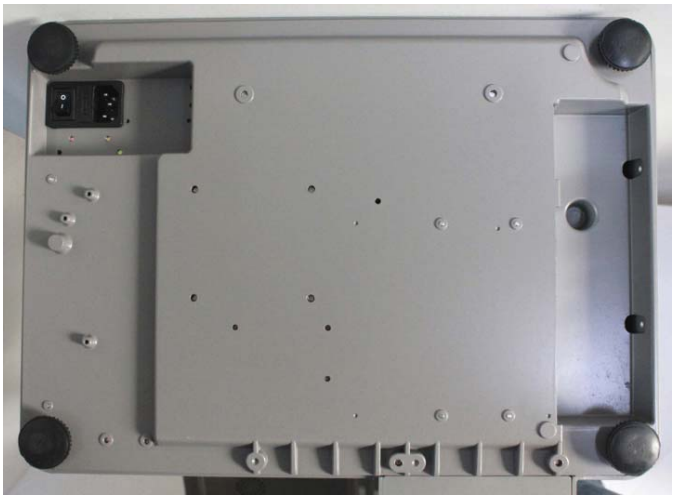
1.1) General Footer

Factory setting (Footer location is following picture)

CL5000 Series



CL5500-D

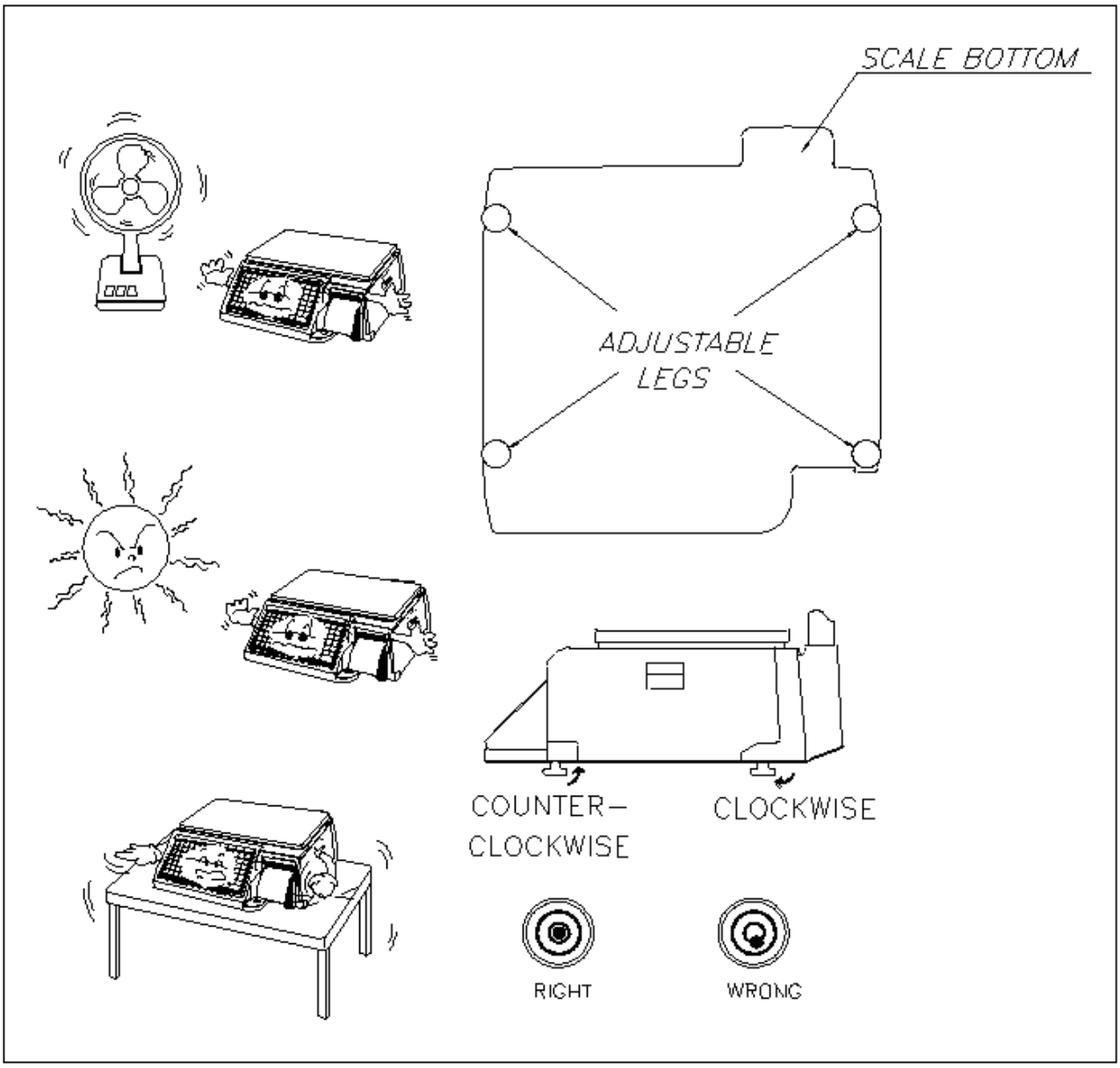


1.2) Short Case Footer

Unscrow the footer and place in center hole for narrow place.

2) Leveling

If the scale is not properly leveled, please adjust the 4 adjustable legs at the bottom of the scale. Turn the legs clockwise or counterclockwise so as to center the bubble of the leveling gauge inside the indicated circle. Turning the adjustable legs counter-clockwise (viewed from top of scale) will lower that part of the scale. Turning the adjustable legs clockwise (viewed from top of scale) will raise that part of the scale. (See Fig.)

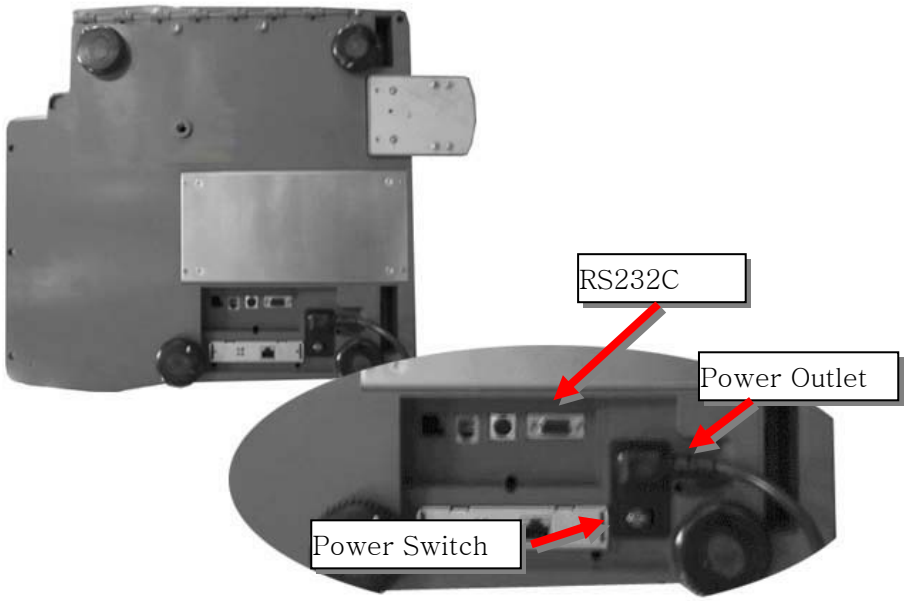

SCALE BOTTOM
ADJUSTABLE
LEGS
COUNTER–
CLOCKWISE
CLOCKWISE
RIGHT
WRONG

1.5 Power Outlet and Requirements

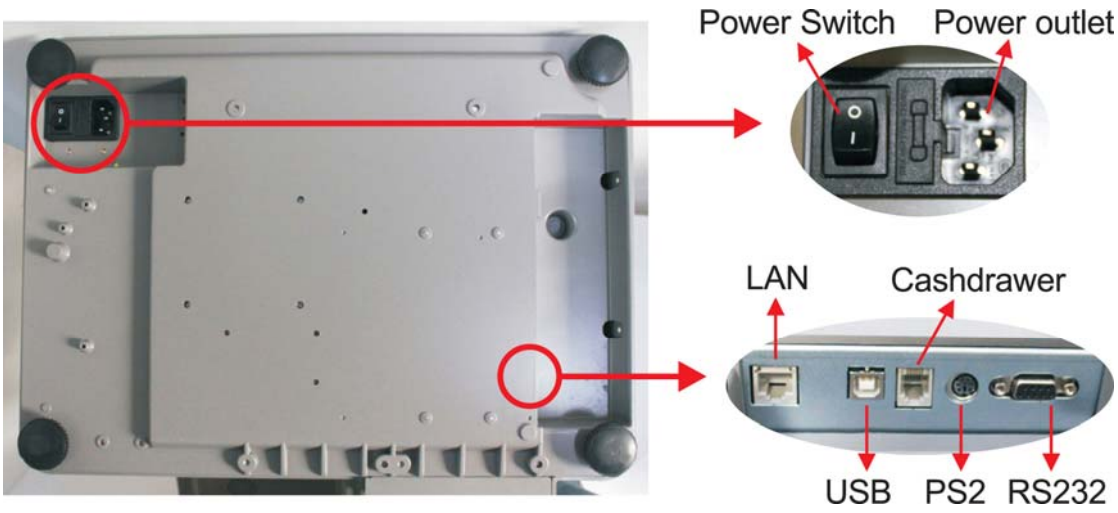
Power Source : AC 100~240V, 50/60Hz, 1.5A

Power consumption : Max 90W

CL5000 series's outlet is on bottom of scale.



CL5500-D



The CL5000 series is designed to be used almost anywhere in the world! Like the many appliances of today, the CL5000 series is designed with an automatically switching power supply. This allows operation when connected to an AC source from 100V to 240V at 50/60Hz with 5% tolerance.

NOTE: Please make sure that the power lines used for the CL5000 series are dedicated lines with No high-noise devices (such as compressors, motors, etc) running on it. Also, make sure that the wiring to the electrical socket is correct. If you are uncertain as to the state of your work' electrical lines, please contact a certified electrician.) Once you are sure as to the safety of the electrical line, make sure to ONLY plug the scale into a 3- prong outlet. The third prong is a safety ground and an electrician should properly wire this if it is not correct or if you are unsure. Failure to this CAN result in electrical shock from use of this or any electronic scale.

3) Do not use any 3-prong to 2-prong adapters or break-off the third prong from the CLP power cord. The third prong is necessary and must be properly connected.

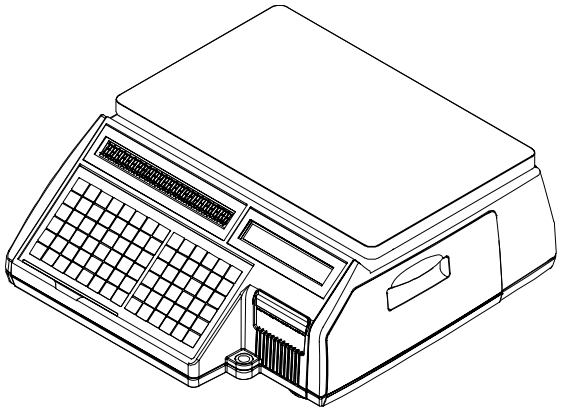
4) If you have any problems or questions regarding this matter, make sure to contact the CAS Service Department.

2. Classification

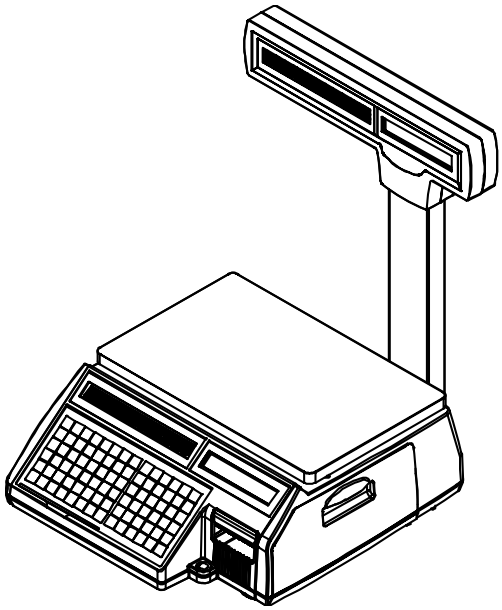
2.1 Scale Overview

CL5000 has 4 differrnt type Standard Type, Pole Type(R,P), Hanging Type, **Double body Type.**

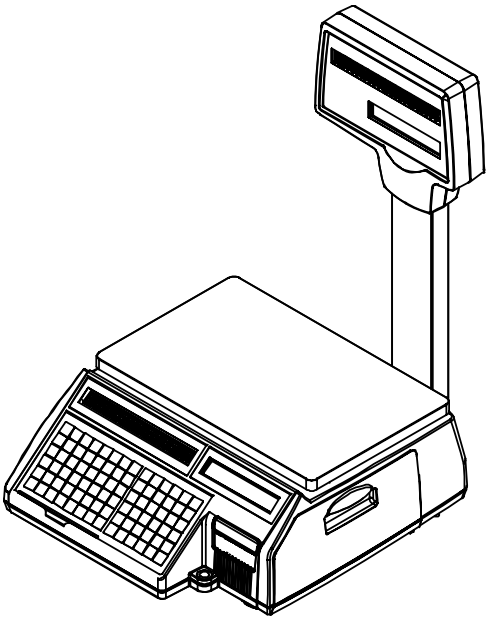
■ Standard Type



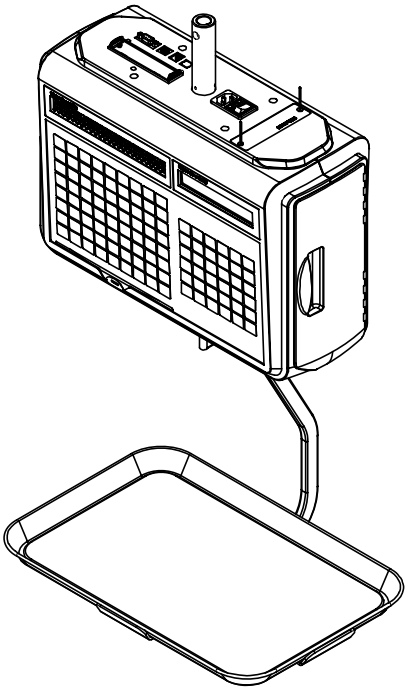
■ Pole Type P



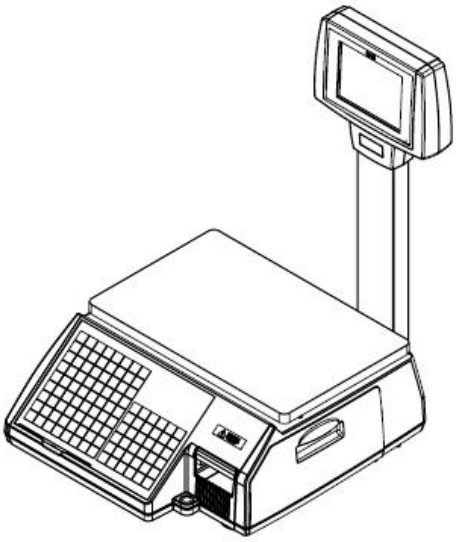
■ Pole Type R



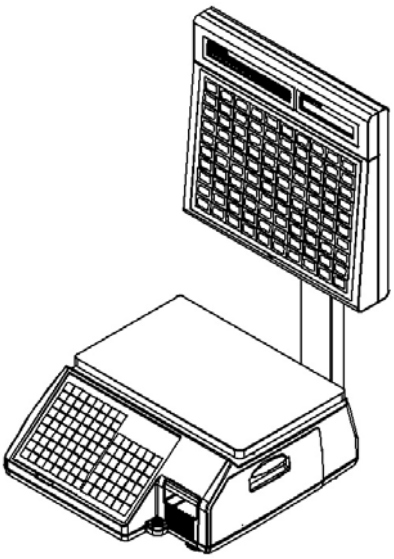
■ Hanging Type H



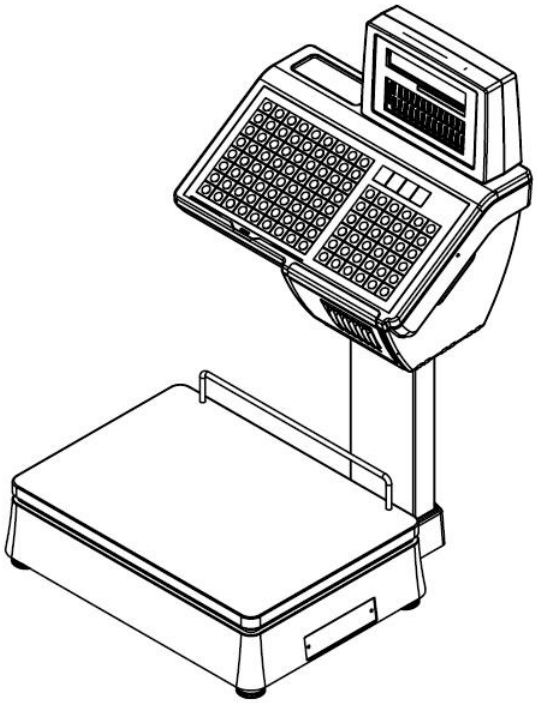
■ Pole Type G



■ Self-service Type



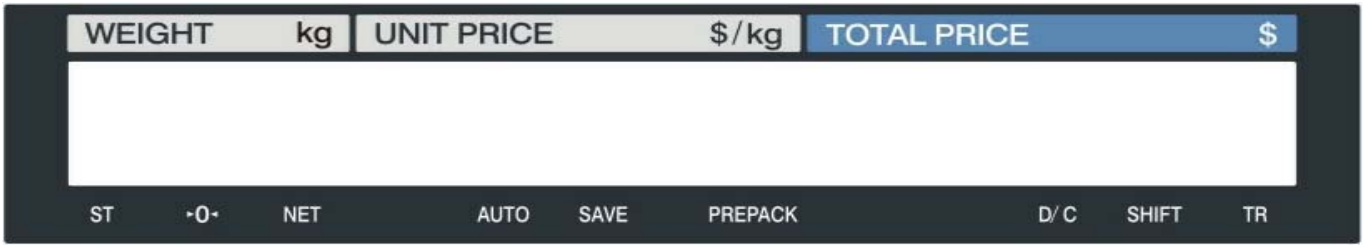
■ Double body Type



2.2 Display and Indicators

There is VFD, LCD(202x64) display on CL5000. VFD display indicates program tare, weight, unit price, total price. Underbar inicates stable, net, zero, auto, save, prepack, D/C, shift, data transfer.
LCD display shows menu massages for program mode.

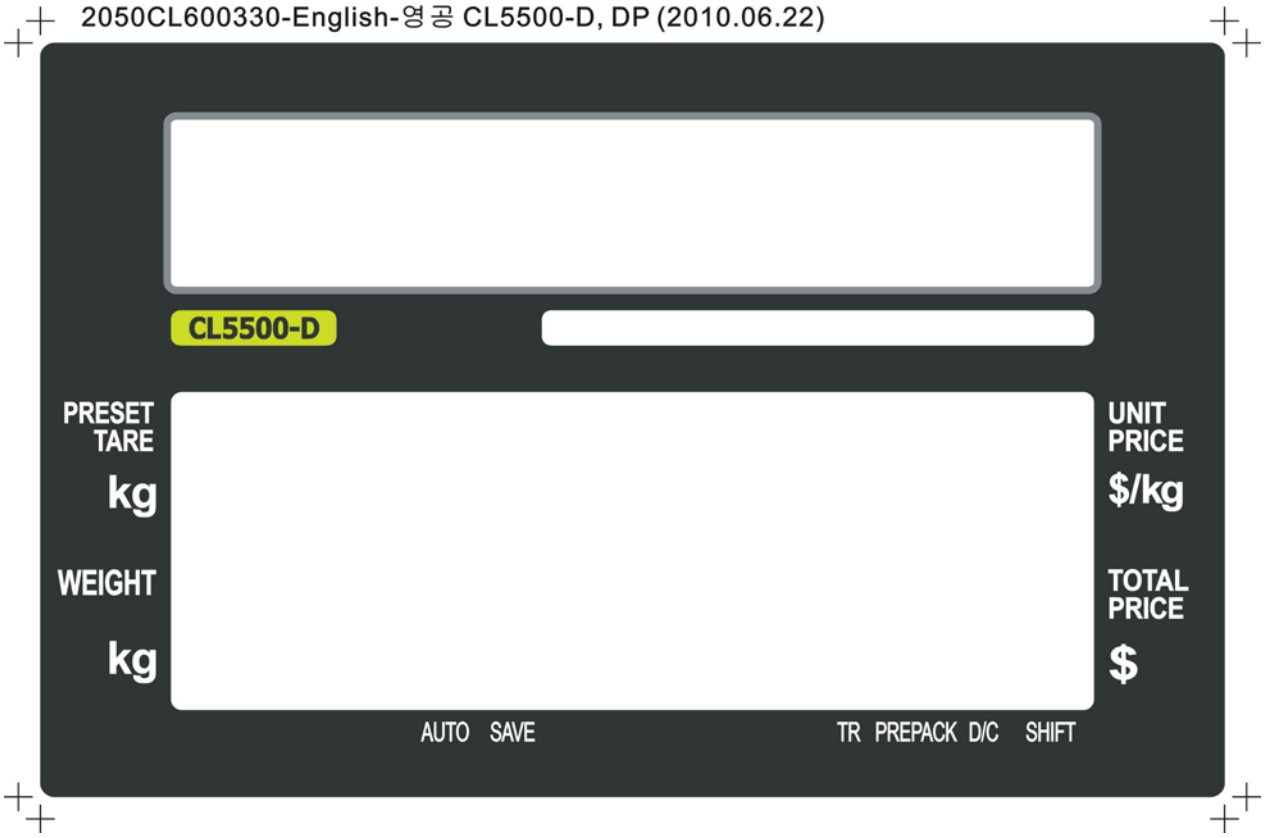
■ **Type-I: 5/8/9**



■ **Type-II : 4/5/6/6**

■ **TYPE-III : CL5000-G**

■ TYPE-Ⅳ : CL5500-D



■ **Indicators**

SYMBOLS			DESCRIPTION
B, P, R, H - TYPE	**G - TYPE**	**D - TYPE**	
ST	ST	STABLE	Stable weight indicator
▶0◀	ZR	▶0◀	Zero weight indicator
NET	NET	NET	Net weight indicator
AUTO	AT	AUTO	Print Mode indicator
SAVE	SV	SAVE	Auto clearing status indicator
PREPACK	PRK	PREPACK	Auto clearing status and Print mode indicator
D/C	DC	D/C	Discount status indicator
SHIFT	SH	SH	Speed key shift status indicator
TR	TR		Data transmission status indicator
		M	Master status indicator
		S	Slave status indicator

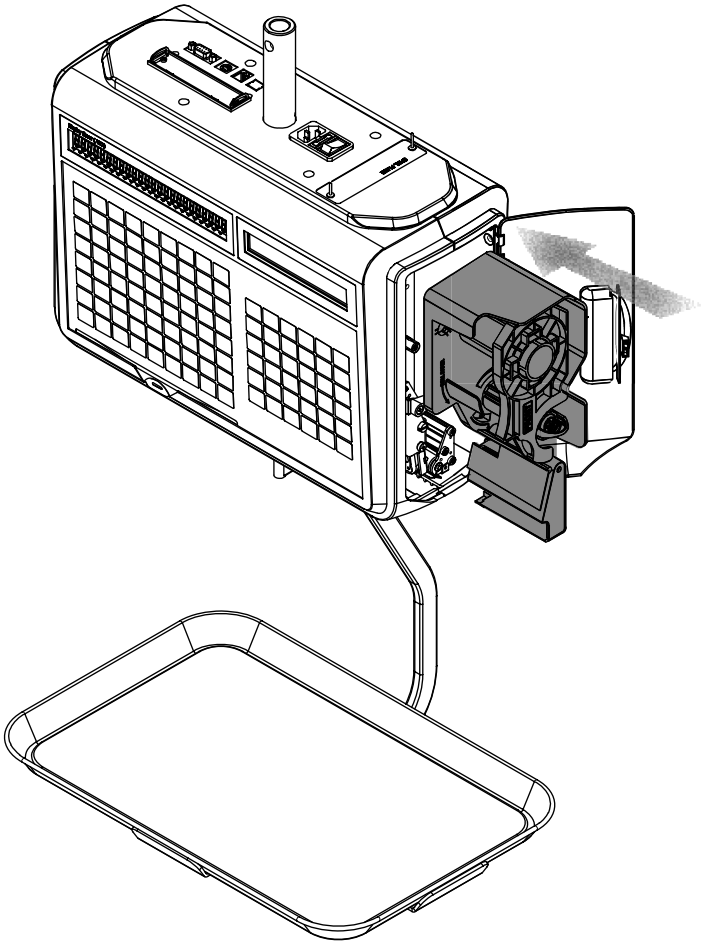
2.3 Printer

•Cartridge type print mechanism

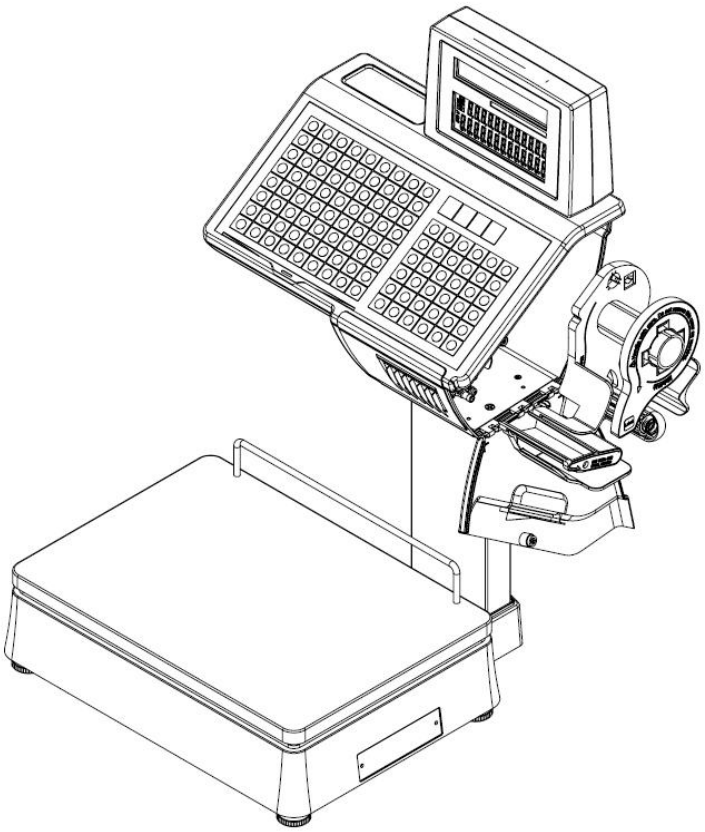
•High quality ROHM printer head (50km/5x10^{7}pulses)
•Improved a rotating force by using 2 independent motors
•Large compartment for 120mm paper roll
•High speed at 100 mm/sec.
•5 speed ranges for paper roll quality adjustment

•Supports Paper
- •Labels,
- •Continuous strip labels,
- •Lineless paper

CL5000-H



CL5500-D



2.4 Commuication

< CL5000 Series >

■ Standard

① RS232

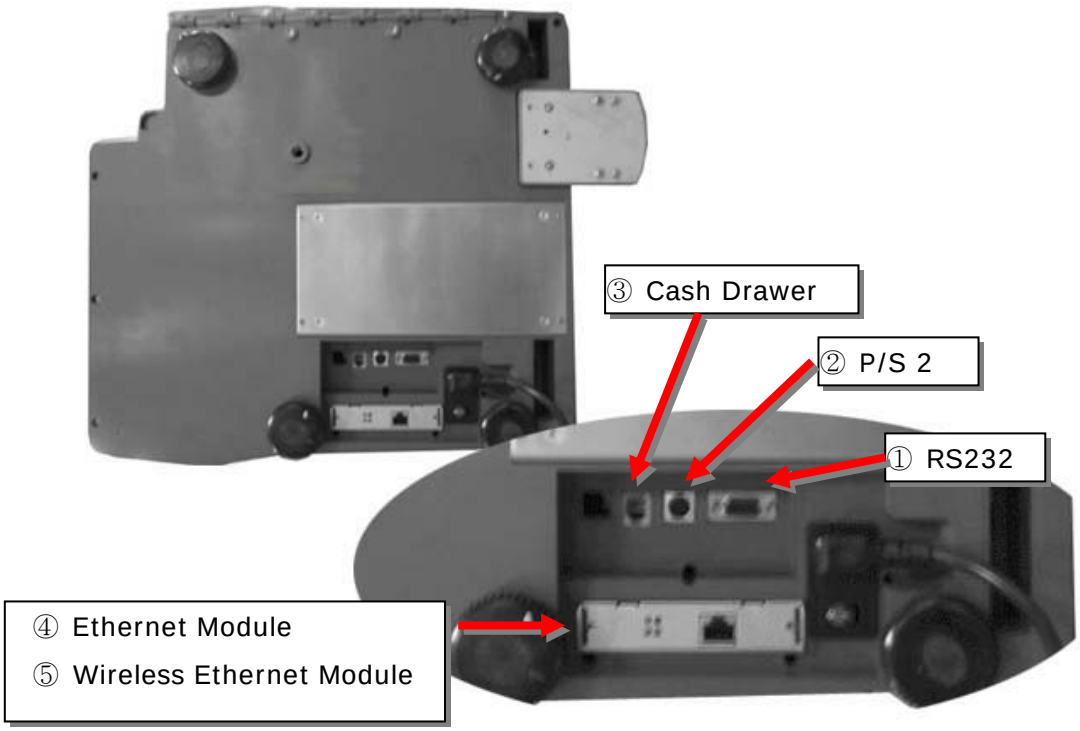
② P/S 2

③ Cash Drawer

■ Options

④ Ethernet cartrige

⑤ Wireless Ethernet cartrige



<CL5500 Series>

■ Standard

① RS232

② P/S 2

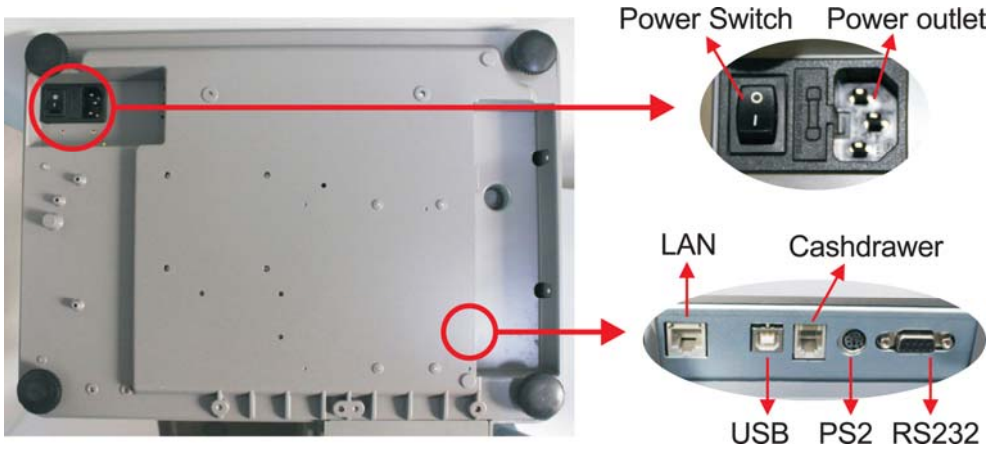
③ Cash Drawer

④ Ethernet

⑤ USB (Virtual COM)

■ Options

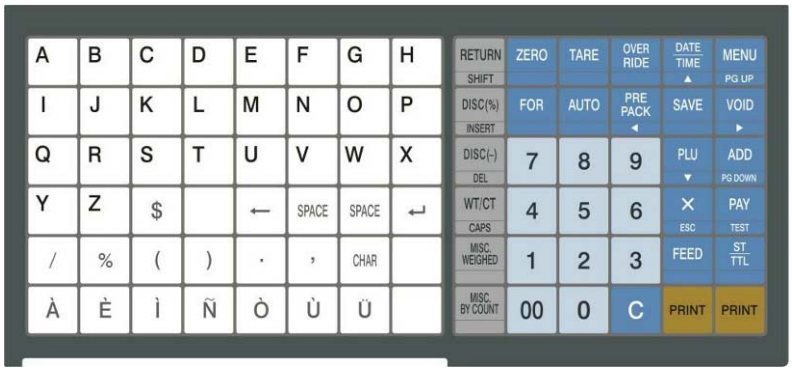
⑥ Wireless Ethernet Module



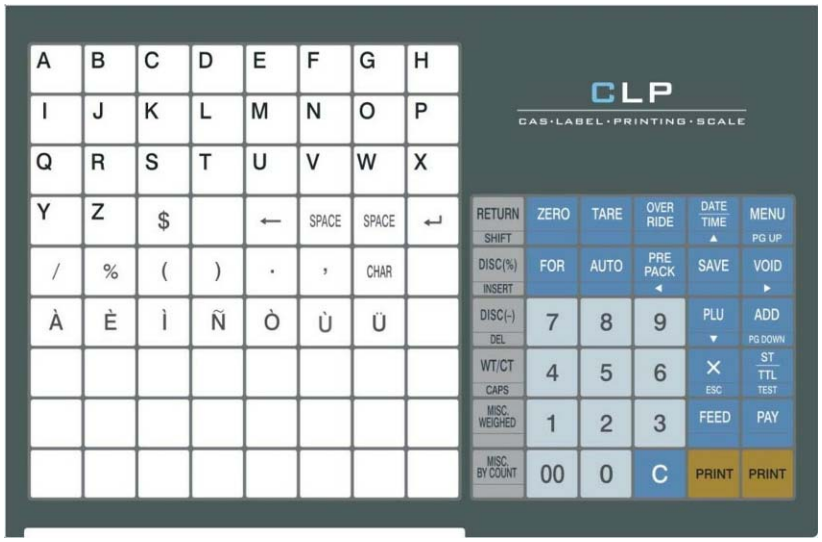
2.5 Key Pad

Key pad is like following picture (This may change depands on contury)

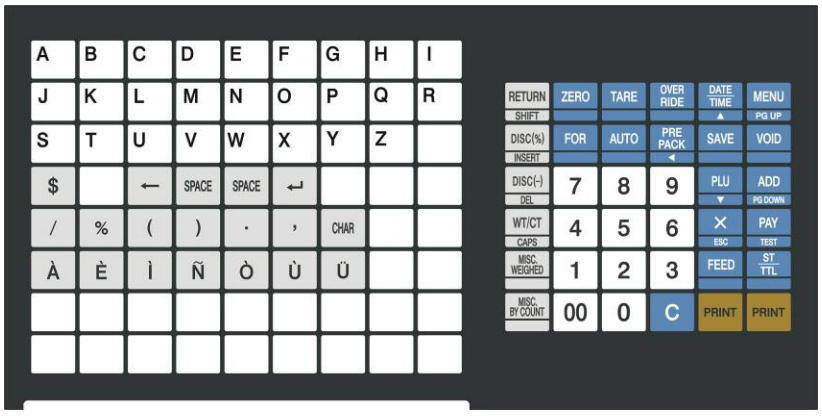
■ Standard Type Keypad



■ Pole Type Keypad

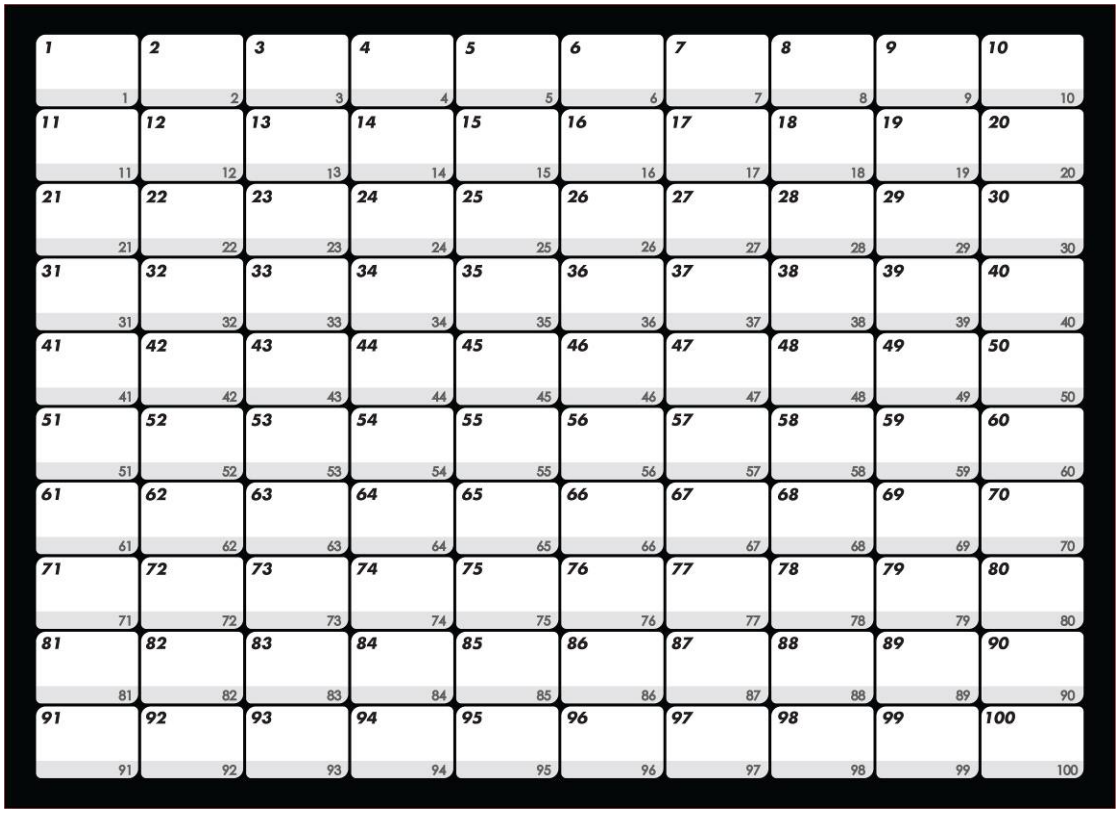


■ Hanging Type Keypad

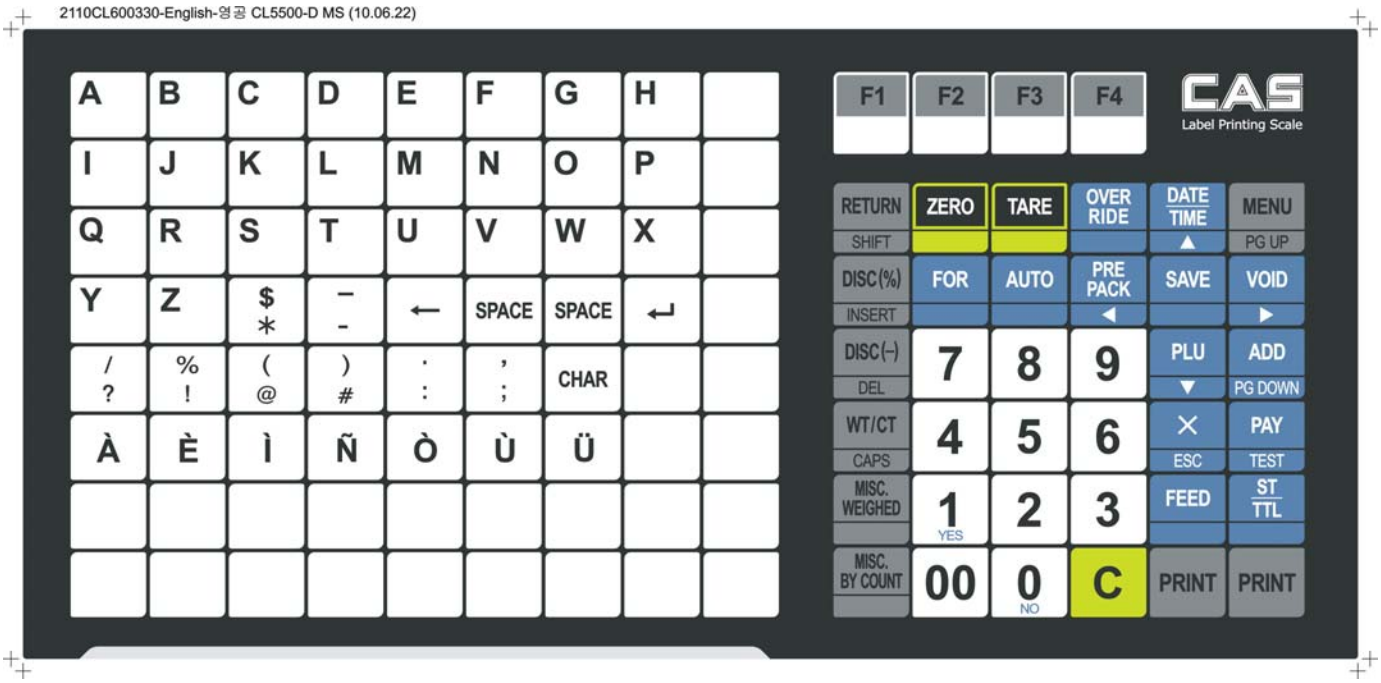


Key pad is like following picture (This may change depands on contury)

■ Self-service Type Keypad



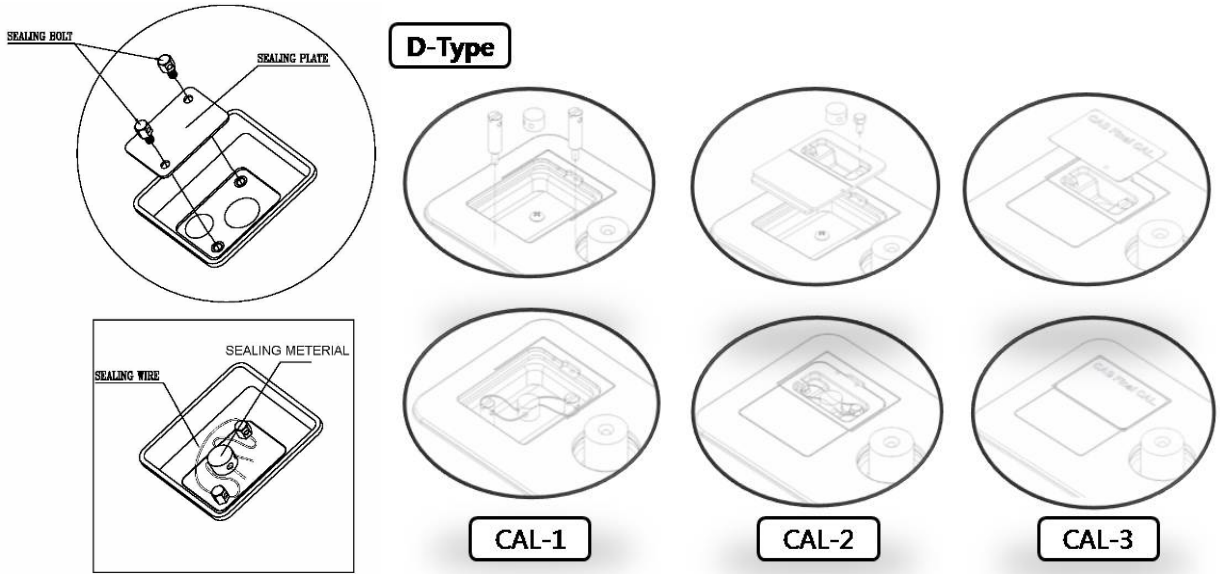
■ Doubody Type Keypad.



* Hot key and Undifine key setting reference Menu **code 1880**

3. Getting Started

3.1 Sealing Method



3.2 Installation of the Label Roll

■ **Label Specifications**

Outer diameter of roll : 100mm

Inner diameter of roll : 40mm

Width of receipt roll : 40, 50, 60mm

Width of label roll : 60mm(MAX)

■ **Print Area**

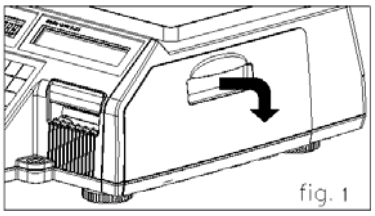
Width of label : 60mm(MAX)

Length of label : 120mm(MAX)

To install the label roll at ANY time you must follow the directions in this section:

1) Press the ON/OFF key and make sure that the display is completely off. Open the printer's side-access panel. (See fig.1)

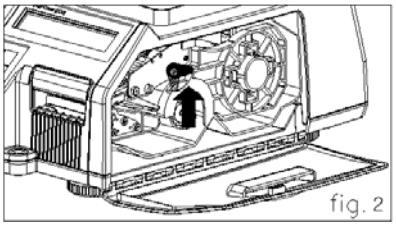
CL5000



CL5500-D

2) Lift up TPH lever as fig 2.

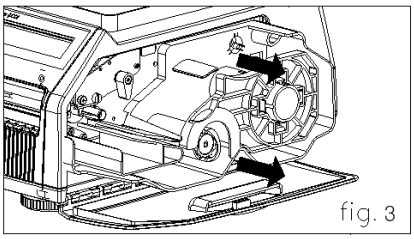
CL5000



CL5500-D

3) Remove cartridge as fig. 3.

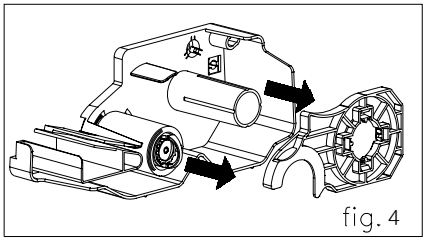
CL5000



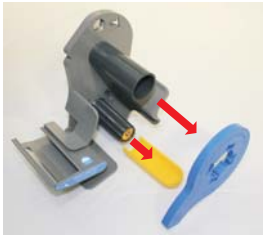
CL5500-D

4) Remove Pick-Up Spool assembley and paper guide from the cartridge as fig. 4.

CL5000

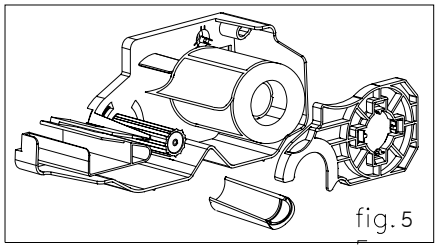


CL5500-D



5) Place the label in the scale as fig. 5

CL5000



CL5500-D

6) Press the FEED key.

NOTE: For auto label calibration press FEED key two or three times

* If label position is not correct, you have to check the followings:

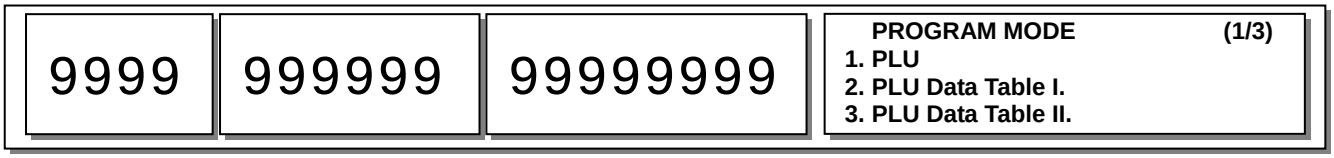
a. Label size (Label setting menu)

b. Feed Adjustment (Feed adjustment menu)

c. Senseor calibration (Sensor Calibration menu)

3.3 Turning Power On/Off

When you turn on scale, display will show 9 ~ 0 for self testing.



During each number and buzzer sound is processing following procedure.

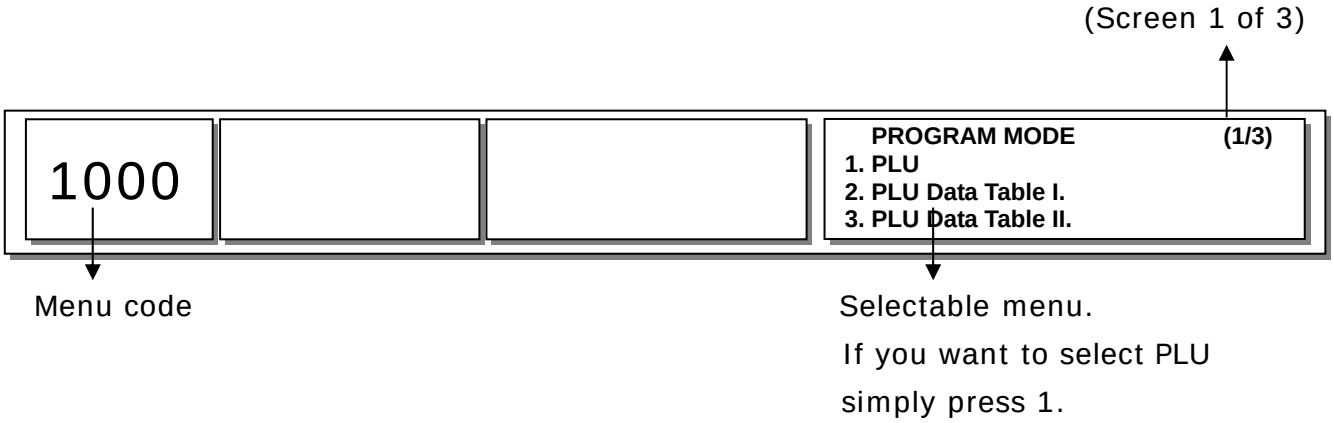
Buzzer On Initial Port,Timer,UART(AD),CPLD,PrinterDriver,RTC
Printer Driver Start
Start Timer
Buzzer Off Flash Check,Set UART (AD) Baudrate
Initial LCD,Display,Key,PS2
VFD “999999” Init Serial, Check Caption Data
VFD “888888” Init ADM,Check Memory Map
VFD “777777” Check Network Parameter,
Load Global Parameter,Load Service Type
VFD “666666” Check Network Flag,CAL mode
VFD “555555” -
VFD “444444” Init Ethernet Module
VFD “333333” Init PLU_Data
VFD “222222” Key Error Check -> Buz,Buz : Command Queue Init
VFD “111111” Load Label Default, CheckAdInitStatus
VFD “000000” Check Password,Logging BOOTTIME,NETSTART

3.4 Program Menu and Tree

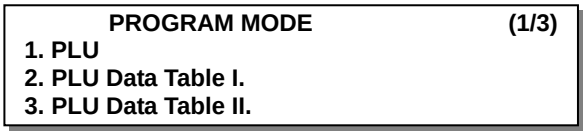
3.4.1 How to access PROGRAM MODE

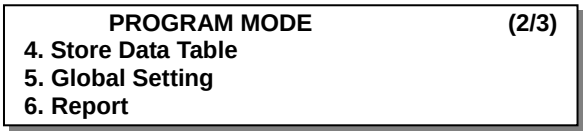
You can see the Program Menu screen by pressing the MENU key.

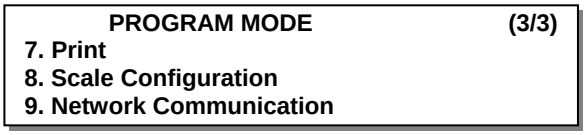
The 2 numbers at top left (1/3) indicate the number of pages or screens. The number to the left of the slash is the current page or screen number and the number to the right of the slash indicates the total number of pages or screens. You can use the Page Up and Page Down keys to navigate from page to page, or you can use the Arrow keys to go through each page 1 line at a time.



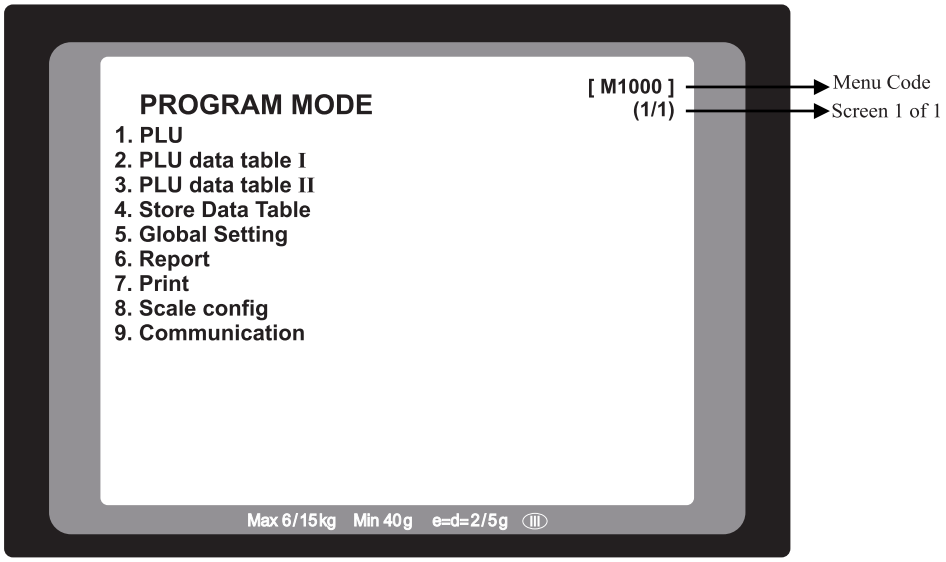
If you press "**Pg Dn**" key, you can see other menu screens as below.







The Screen capture of CL5000-G is as seen bellow



3.4.2 Program Menu Tree

CODE	Menu	CODE	Sub Menu	CODE	Sub Menu		
1100	PLU	1110	Change Price				
		1120	New/Edit	1120			
		1130	Discount	1131	New/Edit		
				1132	List		
				1133	Delete	1137	Delete by PLU(DC)
						1138	Delete by Dept(DC)
						1139	Delete All
		1140	Management	1141	Copy		
				1142	Delete	1147	Delete by PLU No.
						1148	Delete by Dept. No.
						1149	Delete All
				1143	Move		
				1144	Inhibit		
				1145	PLU Sale Count		
		1150	List				
		1160	Speed Key				
		1170	Sample Printing				
1200	PLU Table1	1210	Department				
		1220	Group				
		1230	Tax Rate				
		1240	Sales Message				
		1250	Origin				
		1260	Barcode				
		1270	Tare				
		1280	Unit Symbol				
1300	PLU Table2	1310	Ingredient				
		1320	Nutrition Facts				
		1330	Traceability				
		1340	Country				
		1350	Slaughter House				
		1360	Cutting Hall				
1400	Store Data Table	1410	Store				
		1420	Customer				
		1430	Scroll Message	1431	Configuration		
				1432	Edit Scroll Message		
				1433	List Scroll Message		
		1440	Currency				
		1450	Job Batch Schedule				
		1460	Scanner				
		1470	Label Format Key Table				
1500	Global Setting	1510	Label Format				
		1520	Barcode				
		1530	Discount	1531	Priority Setting		
				1532	Weight Discount		
				1533	Count Discount		
				1534	PCS Discount		
		1540	Tax	1541	Set Global Tax		
				1542	Global Tax No.		

1600	Report	1610	X1 Report	1611	Scale
				1612	PLU
				1613	Misc. PLU
				1614	Group
				1615	Department
				1616	Hourly
				1617	Clerk
		1620	Z1 Report		
		1630	X2 Report	1631	Scale
				1632	PLU
				1633	Misc. PLU
				1634	Group
				1635	Department
				1636	Hourly
				1637	Clerk
		1640	Z2 Report		
		1650	Clear All		
1700	Printing	1710	Print inhibit		
		1720	Markdown		
		1730	H/W Setting	1731	Print Mode
				1732	Label/Ticket Size
				1733	Sensor Calibration
				1734	Motor & Sensor
				1735	Print Intensity
				1736	Adjust Feed Length
				1737	Label Preprint
		1740	Serial Number Format		
		1750	Addup Total		
		1760	Ticket	1761	Select Ticket Item
				1762	Select List Item
				1763	Select Ticket Font Size
1800	Scale Config	1810	Sale Mode		
		1820	Operation Mode		
		1830	Department		
		1840	Date/Time		
		1850	User/Security Configuration	1851	New/Edit User
				1852	Change Password
				1853	List User
				1854	Delete User
				1855	Config Permission
				1856	Clerk Key
		1860	Test	1861	Display
				1862	A/D
				1863	Keypad
				1864	Printer
				1865	Printer Sensor
				1866	Memory Information
				1867	Firmware Version
				1868	Communication
		1870	Scale Parameter	1871	Display
				1872	Printing Oper
				1873	Sale setup
				1874	Clerk Logout
		1880	Function Key Define		

1900	Communication	1910	Network Setting	1911	Service Type
				1912	DHCP
				1913	IP
				1914	Remote IP
				1915	RS232C
				1916	WLAN Setting
				1917	WLAN Config
		1920	Application		
		1930	Scale Lock/Unlock		
		1940	Check Scale		
		1950	Backup to scale		

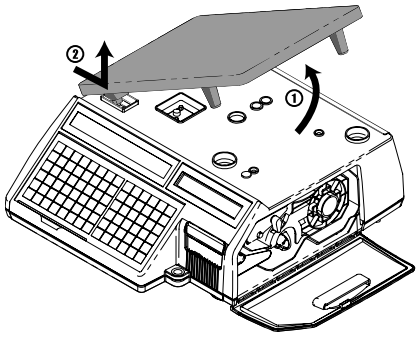
3.4.3 Calibration Menu Tree

CODE	Menu	CODE	Sub Menu	CODE	Sub Menu
8100	Calibration	8110	Span Calibration		
		8120	Span/Zero Fine Adjust		
		8130	Capacity & Units		
		8140	Gravity Constant		
		8150	Percent Calibration		
		8160	Linearity Adjust		
		8170	Zero & Tare Setting		
		8180	Factory Setting	8181	Digital Filtering
				8182	A/D Hardware Setting
				8183	A/D Initialize
				8184	Linearity Fine Adjust
				8185	Hysteresis Calibration
8200	System Options	8210	Clear Memory	8211	Clear Report
				8212	Clear All PLU
				8213	Clear All Table
				8214	Flash All Clear
		8220	Scale Type		
8300	Printer Hardware	8310	Print Mode		
		8320	Label/Ticket Size		
		8330	Sensor Calibration		
		8340	Sensor & Motor		
		8350	Printer Intensity		
		8360	Adjust Feed Length		
		8370	Label Pre-print		
		8380	Printer Initialize		
8400	Network Options	8410	Enable Interface		
8500	Self Test	8510	Display Test		
		8520	A/D Test		
		8530	Keyboard Test		
		8540	Printer Test		
		8550	Printer Sensor Test		
		8560	Memory Information		
		8570	Firmware Version		
		8580	Cash Drawer Test		
8600	Parameter Setting	8600	[Parameter Setting Mode]		

4. Calibration Mode

4.1 Calibration

(Calibration MENU –> 1. Calibration)



Execute Weight Calibration and A/D related settings

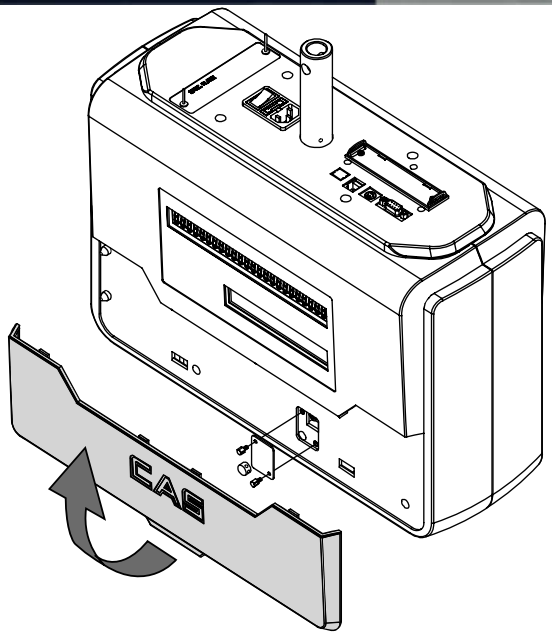
(Access Authorized CAS Tester only)

Open the tray and remove the calibration sealing.

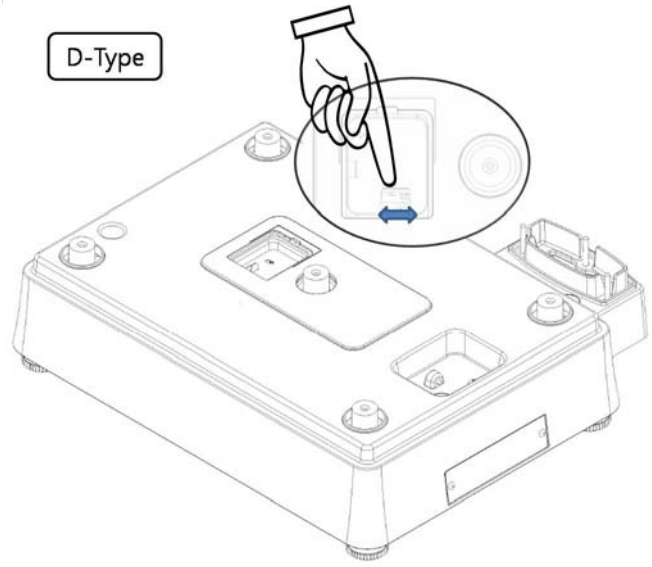
(CAUATION: Lift the tray Right side first and unlock the left side)

Order to access calibration mode:

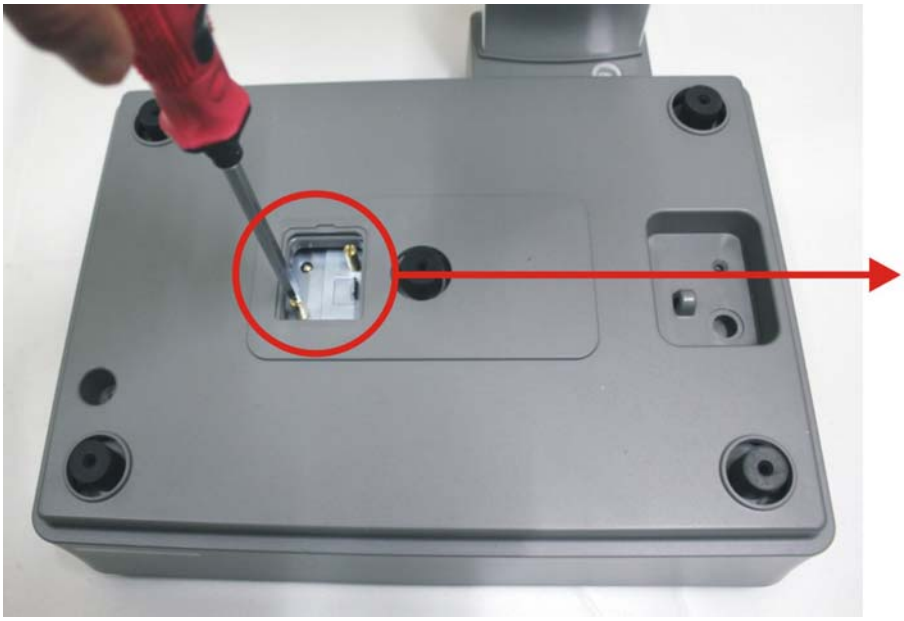
Insert a stick into the CAL switch. Switch power on, while pushing the CAL button.



NOTE: For Hanging type: Pull forward the bottom handle to open



CL5500-D



First page of Calibration mode

8000	CAL	ModE	CALIBRATION MODE (1/2) 1. Calibration 2. System Options 3. Printer Hardware

4.1.1 Span Calibration (Menu Code 8110)

(Calibration MENU -> 1. Calibration -> 1. Span Calibration)

*Requires set of certified weights. (For best result prepare 15kg/6kg (max) weights)
Display shows the amount of weight that you will need.

① Select “Span Calibration”

ULoAd	10730	10730	ZERO CALIBRATION (1/2) - Remove all weight. - Press PRINT when ready.

② Empty tray and press “PRINT”

WAit4	10730	10730	ZERO CALIBRATION (1/2) - Remove all weight. - Press PRINT when ready.

While calibrating zero display shows “Wait4” ~ “Wait0” and follow next message for Span Calibration.

LoAd	0	10730	SPAN CALIBRATION (2/2) - Place 15.000 kg on the platter. - Press PRINT when ready.

③ Put on the Weight for Max. Capacities then press “PRINT”

*Menu 8130 sets the max capacity for calibration.

WAit4	77407	88137	SPAN CALIBRATION (2/2) - Place 15.000 kg on the platter. - Press PRINT when ready.

Display shows “Wait4” ~ “Wait0” then following message

8100	CAL	ModE	**CALIBRATION (1/3)** **1. Span Calibration** **2. Span/Zero Fine Adjust** **3. Capacity & Units**

Error Message

* When tray is unstable during calibration process, following message appear.

WAit0	2776	2776	**Cal Error – Unstable (0x01)** **Press Any Key**

* When calibration weight was too heavy or light, following message will appear.
  - Calibration weight limits can re-adjust by menu 8182 “Cal Zero(Span) Max(Min) Range”

WAit0	1027	1027	**Cal Error – Range Over (0x07)** **Press Any Key**

* When A/D failure is detected during Calibration following message will appear.
  Please check the connector between main board and other controller.

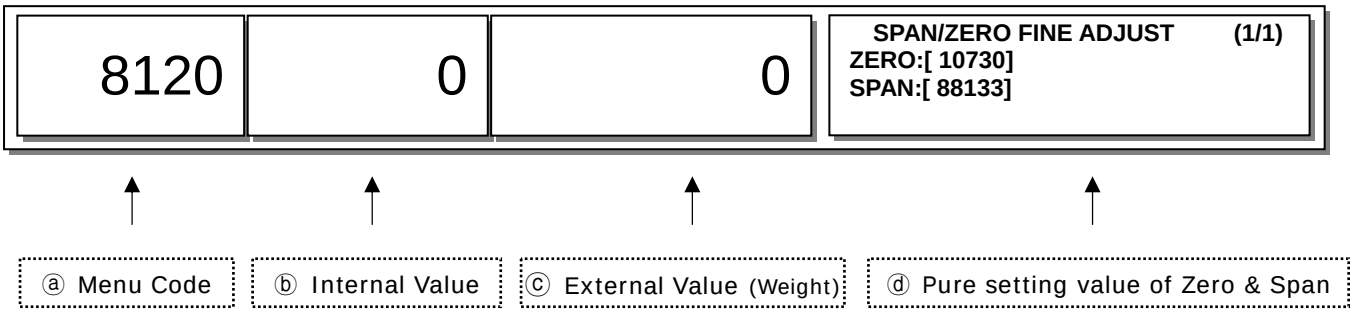
WAit0	1027	1027	**Cal Error – Wrong ADM (0xff)** **Press Any Key**

4.1.2 Span/Zero Fine Adjust (Menu Code 8120)

(Calibration MENU -> 1. Calibration -> 2. Span/Zero Fine Adjust)

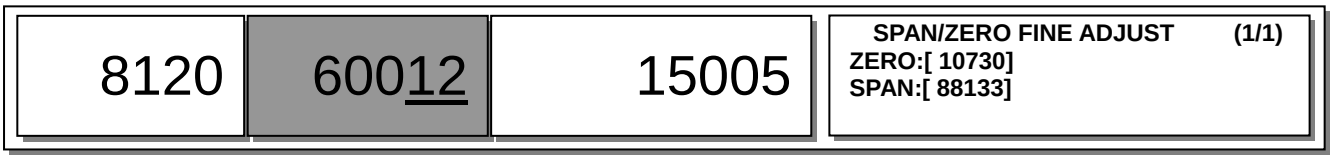
This mode is for fine tuning of scale after span Cal. Please put Max weight on the tray and adjust A/D results at 60000, using the cursor key "◀ ▶." and Number key.

① Select menu "Span/Zero Fine Adjust"



* If ⓒ is not set to zero press " ZERO" key. Value ⓓ will update.

② Put Max. Capacity weight on the tray



③ Use ◀ ▶ key for fine adjust.

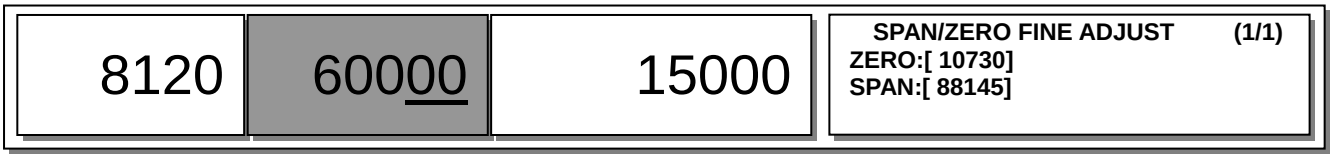
* Insert setting value by cursor key (for the fine tune)

"▶" Increases Span value "ⓓ" to decrease Internal value "ⓑ"

"◀" Decreases Span value "ⓓ" to increase External value "ⓑ"

- Internal value 60012 needs to change 60000

  Press [▶] X 12 Times to decrease internal value.



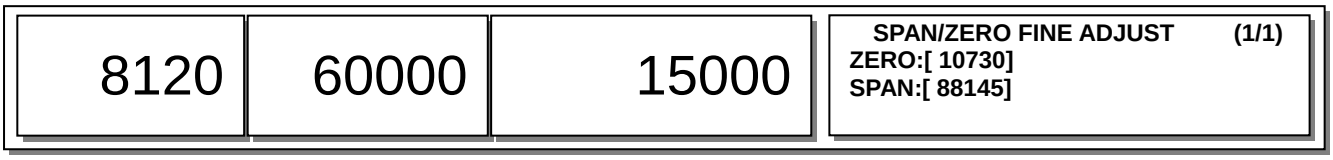
* Insert setting value by number key pad

- Set Span value: use curser key to highlight span value.
- Type estimate value using number key then press “TEST” key for results

  # This process may take several times to set 60000.

  During this process Max Capacity weight is needed for best result.

Ex) Input “88145” by keypad and press “TEST” key



4.1.3 Capacity & Units (Menu Code 8130)

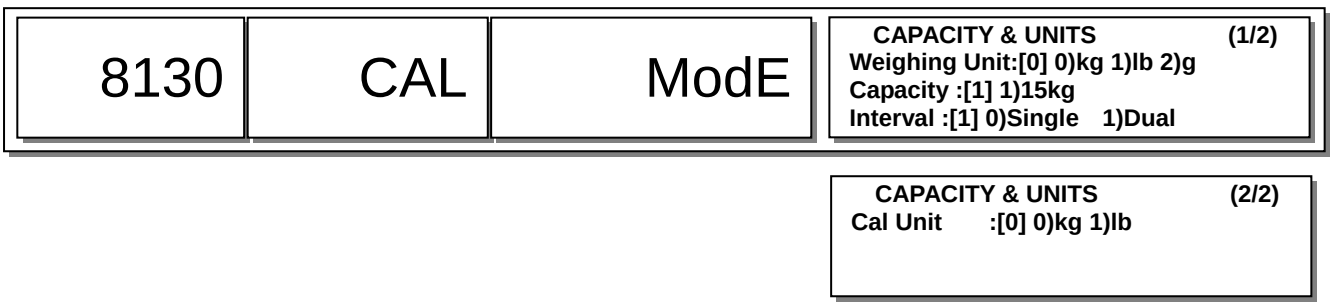
(Calibration MENU –> 1. Calibration –> 3. Capacity & Units)

Set scale's Weighing unit, capacity, Interval, Cal Unit.

Caution: **Span calibration** must take place after "**Capacity & Units**" setting.

Do not change setting after **Span calibration**.

	Option	Setting Value
1	Weighing Unit	Setting Scale Unit 0 : kg 1 : lb 2 : g
2	Capacity	Setting Scale Max Capacity 1 : 15 kg / 30 lb 2 : 30 kg / 60 lb
3	Interval	Setting Usage of Multi-interval 0 : Single Interval 1 : Dual Interval
4	Cal Unit	Setting Calibration Weighing unit 0 : kg 1 : lb * This setting uses in Span Calibration, Percent Calibration, Linearity Adjust.

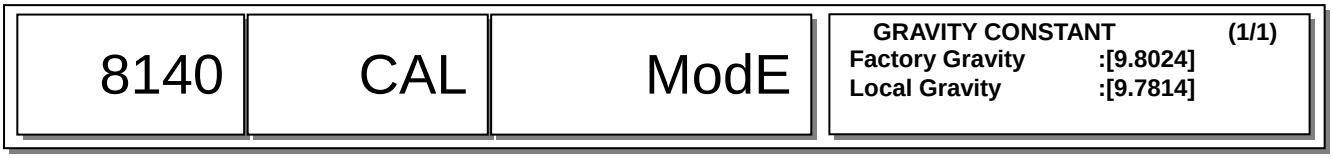


4.1.4 Gravity Constant (Menu Code 8140)

(Calibration MENU -> 1. Calibration -> 4. Gravity Constant)

CL-5000 scale enables to calibrate in any country. You can set according to country standard gravity constant data. For case of full recalibration set the factory gravity first and then local area gravity code.

(For span calibration Local gravity value is automatically matches with Factory gravity value)



Use the following table to determine the proper G-Constant for your area.

Country	City	G-Constant	Country	City	G-Constant
Argentina	Buenos Aires	9.7979	Mexico	Mexico City	9.7799
Australia	Sydney	9.7979	Morocco	Rabat	9.7964
Austria	Vienna	9.8099	Netherlands	Amsterdam	9.8129
Belgium	Brussels	9.8114	New Zealand	Wellington	9.8039
Belize	Manamah	9.7904	Norway	Oslo	9.8189
Bolivia	La Paz	9.7844	Panama	Panama City	9.7814
Brazil	Brasilia	9.7889	Peru	Lima	9.7829
Canada	Montreal	9.8069	Philippines	Manila	9.7844
	Ottawa	9.8069	Poland	Swider	9.8159
	Toronto	9.8054	Portugal	Lisbon	9.8009
	Vancouver	9.8099	Rumania	Bucharest	9.8054
Check Republic	Prague	9.8114	Saudi Arabia	Riyad	9.7904
Chile	Santiago	9.7979	Scotland	Stockholm	9.8189
China	Hong Kong	9.8099	Singapore	Singapore	9.7814
Colombia	Bogota	9.7799	South Africa	Johannesburg	9.7919
Costa Rica	San Jose	9.7829	Spain	Madrid	9.8024
Cypress	Nicosia	9.7979	Switzerland	Bern	9.8084
Denmark	Copenhagen	9.8159	Taiwan	Taipei	9.7904
Ecuador	Quito	9.7724	Tunisia	Tunis	9.7799
Finland	Helsinki	9.8189	Turley	Ankara	9.8024
Germany	Dusseldorf	9.8129	Uruguay	Montevideo	9.7964
Great Britain	London	9.8144	USA	Anchorage	9.8189
Greece	Athens	9.8009		Atlanta	9.7964
Guatemala	Guatemala	9.7844		Boston	9.8039

Hungary	Budapest	9.8069		Chicago	9.8024
Indonesia	Djakarta	9.7814		Dallas	9.7949
Iraq	Baghdad	9.7964		Detroit	9.8039
Japan	Mishima	9.7979		Los Angeles	9.7979
Korea	Seoul	9.7994		New York	9.8024
Kuwait	Kuwait	9.7919		Philadelphia	9.8024
Lebanon	Beirut	9.7964		San Francisco	9.7994
Mauritius	Port Louis	9.7859	Venezuela	Caracas	9.7829

NOTE: The G-Constant is the acceleration of gravity in meters per second per second.

4.1.5 Percent Calibration (Menu Code 8150)

(Calibration MENU –> 1. Calibration –> 5. Percent Calibration)

When the case you don't have max weight for calibration. Percent Calibration enables to use lighter weight.

8150	CAL	ModE	**PERCENT CALIBRATION (1/1)** **Use Weight :[15] kg** **Full Capa Weight:15.000 kg**

① For 5kg weight, input "5"key and press "print"

ULoAd	10731	10731	**ZERO CALIBRATION(1/2)** **- Remove all weight.** **- Press PRINT when ready.**

② Clear the tray and press "PRINT", then "Wait4~Wait0" will display.

LoAd	0	10731	**SPAN CALIBRATION (2/2)** **- Place 5.000 kg on the platter.** **- Press PRINT when ready.**

③ Put 5kg on the tray the press "PRINT" after "Wait4~Wait0" exit menu.

8100	CAL	ModE	**CALIBRATION (2/3)** **4. Gravity Constant** **5. Percent Calibration** **6. Linearity Adjust**

4.1.6 Linearity Adjust (Menu Code 8160)

(Calibration MENU -> 1. Calibration -> 6. Linearity Adjust)

You can re-adjust the med-range weight level for precise calibration.

ULoAd	10731	10731	**ZERO CALIBRATION (1/3)** **- Remove all weight.** **- Press PRINT when ready.**

① For 5kg weight, input “5”key and press “print”

8160	CAL	ModE	**LINEARITY ADJUST (1/1)** **Use Weight :[5] kg** **Full Capa Weight:15.000 kg**

② Clear the tray and press “PRINT”, then “Wait4~Wait0” will display

Mid	25802	36532	**MID CALIBRATION (2/3)** **- Place 5.000 kg on the platter.** **- Press PRINT when ready.**

③ Clear the tray and press “PRINT”, then “Wait4~Wait0” will display

LoAd	77407	88137	**SPAN CALIBRATION (3/3)** **- Place 5.000 kg on the platter.** **- Press PRINT when ready.**

③ Put 5kg on the tray the press “PRINT” after “Wait4~Wait0”.

8100	CAL	ModE	**CALIBRATION (2/3)** **4. Gravity Constant** **5. Percent Calibration** **6. Linearity Adjust**

③ Put 15kg on the tray the press “PRINT” after “Wait4~Wait0” exit menu.

4.1.7 Zero & Tare Setting (Menu Code 8170)

(Calibration MENU -> 1. Calibration -> 7. Zero & Tare Setting)

CAUTION: This Setting is part of (OIML, NTEP, etc) regulation must be setting by the local restriction.

You can set the ZERO, TARE at acceptable range and maximum display range.

8170	CAL	ModE

```
   ZERO & TARE SETTING          (1/4)
Init-Zero range(%): [ 10]
Rezero Range(%) : [   2]
Tare Range          : [ 5.998]kg
```

```
   ZERO & TARE SETTING          (2/4)
Overload Range(d): [ 9]
Accumulation(Y/N) : [N]
Subtraction(Y/N)    : [N]
```

```
   ZERO & TARE SETTING          (3/4)
Gross Zero Mark(Y/N): [Y]
Net Zero Mark(Y/N)   : [Y]
Gross Zero-Tracking(Y/N): [Y]
```

```
   ZERO & TARE SETTING          (4/4)
Net Zero-Tracking(Y/N)   : [Y]
```

① Init-Zero range

Before Sales mode you need to compare Calibrated A/D value and current A/D value need to be in the safe range order to function property. Scale will not function if there is a weight or any distortion on the tray.

② Re-zero Range (%)

During the usage, zero range might be unstable cause by tray and other condition. You can set the allowance percent (%) range for zero display. (OIML regulation restricts 2% of maximum weight range can be used)

③ Tare Range

You can set the maximum weights of tare up to 5.9kg

(OIML regulation restriction is 6kg tare limits)

④ Overload Range(d)

You can set the maximum overload range. For example, [9] set as 15.045g (5gx[9]=45g). If the weight is over 15.045 overload message will appear.

⑤ Accumulation(Y/N)

You can set Tare weights additively. This is useful additional package is used for different goods.

⑥ Subtraction(Y/N)

You can set Tare only if the other tare weight is less then the first value.

⑦ Gross Zero Mark(Y/N)

The real weight value is 0(Gross Weight=0) display will indicate "▼" on the gross weight

NOTE: * Gross weight is display will display total weight. (Tare setting does not effect)

* Net weight is remain value of Tare weight.

* If Tare setting is set as "N" the gross weight and net weight value is same.

⑧ Net Zero Mark(Y/N)

When Tare weight is set to zero, Zero mark will display. In other words Net Weight is zero.

⑨ Gross Zero-Tracking(Y/N)

You can set Zero-tracking while Gross Zero is 0. Factory setting is "Y".

⑩ Net Zero-Tracking(Y/N)

You can set Zero-tracking while Net zero is 0. Factory setting is "N".

4.2 Factory Setting (Menu Code 8180)

(Calibration MENU -> 1. Calibration -> 8. Factory Setting)

This setting A/D's advanced setting only for factory primary setting.

4.2.3 A/D Initialize (Menu Code 8183)

(Calibration MENU -> 1. Calibration -> 8. Factory Setting -> 3. A/D Initialize)

8183	CAL	ModE	**A/D INITIALIZE (1/1)** **Are You Sure?(Y/N) :[N]**

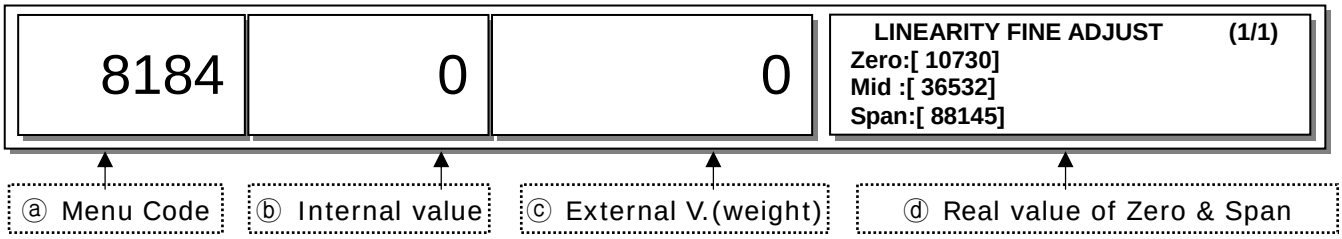
CAUTION: Must record setting values before Selecting [Y]. This will set the scale first default setting

4.2.4 Linearity Fine Adjust (Menu Code 8184)

(Calibration MENU -> 1. Calibration -> 8. Factory Setting -> 4. Linearity Fine Adjust)

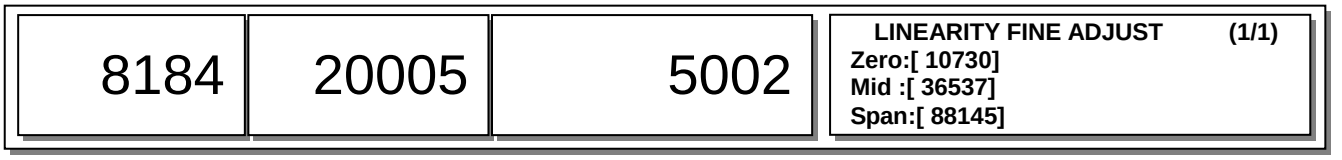
①

Selecting“LinearityFineAdjust”



NOTE: You can set 0 by pushing “ZERO” This will update new Zero value.

② MENU 8106 Put 5kg(MAX=15kg) on the tray.



③ Using cursor key for fine adjust.

* How to use cursor key

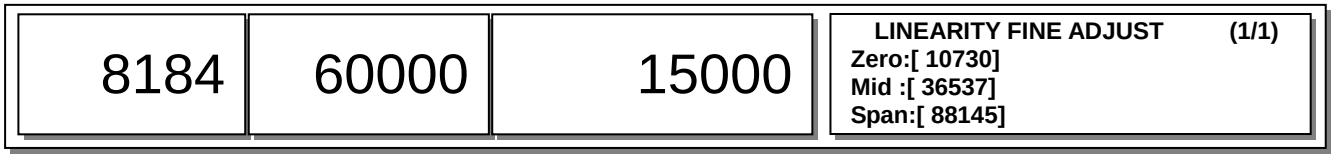
“▶” Increase Span value(ⓓ) to reduce internal (ⓑ)value

“◀“ Decrease Span value(ⓓ) to increase internal (ⓑ)value

- Setting Mid value press “▼”key
- Internal value 20005 to change 20000 press “▶” 5times.

* How to input setting value

- Use cursor key to change mid value.
- Insert “36537” then press “TEST”



④ Also change Span value with cursor key.

⑤ Press “SAVE” to save and exit.

4.2.5 *Hysteresys Calibration* (Menu Code 8185)

(Calibration MENU -> 1. Calibration -> 8. Factory Setting -> 5. Hysteresys Calibration)

①Selecting “Hysteresys Calibration”

8185	CAL	ModE	**HYSTERESYS CALIBRATION (1/1)** **USE WEIGHT :[2] kg** **Full Capa Weight : 6.000 kg**

② For 2kg Mid-weight, input “2”key and press “print”

ULoAd	0	27770	**ZERO CALIBRATION (1/4)** **- Remove all weight.** **- Press PRINT when ready.**

③ Empty tray and press “PRINT”

WAit4	27770	27770	**ZERO CALIBRATION (1/4)** **- Remove all weight.** **- Press PRINT when ready.**

④ While calibrating zero display shows “Wait4” ~ “Wait0” and follow next message for Mid Calibration.

Mid U	0	27770	**MID CALIBRATION (2/4)** **- Place 2.000 kg on the platter.** **- Press PRINT when ready.**

⑤ Put on the Weight for Mid-weight. Capacities then press “PRINT”

WAit4	28850	55510	**MID CALIBRATION (2/4)** **- Place 2.000 kg on the platter.** **- Press PRINT when ready.**

⑥ While calibrating Mid-weight display shows “Wait4” ~ “Wait0” and follow next message for Span Calibration.

LoAd	28850	55510	**SPAN CALIBRATION (3/4)** **- Place 6.000 kg on the platter.** **- Press PRINT when ready.**

⑦ Put on the Weight for Max. Capacities then press “PRINT”

*Menu 8130 sets the max capacity for calibration.

WAit4	83752	111522	SPAN CALIBRATION (3/4) - Place 6.000 kg on the platter. - Press PRINT when ready.

⑧ While calibrating span display shows “Wait4” ~ “Wait0” and follow next message for Mid Calibration.

Mid U	83752	111522	MID CALIBRATION (4/4) - Place 2.000 kg on the platter. - Press PRINT when ready.

⑨ Put on the Weight for Mid-weight. Capacities then press “PRINT”

WAit4	28852	55512	MID CALIBRATION (4/4) - Place 2.000 kg on the platter. - Press PRINT when ready.

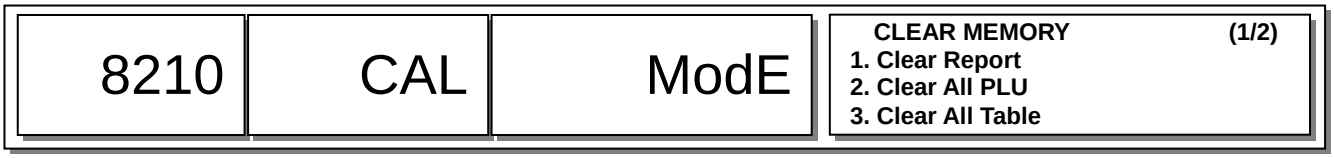
⑩ Display shows “Wait4” ~ “Wait0” then following message

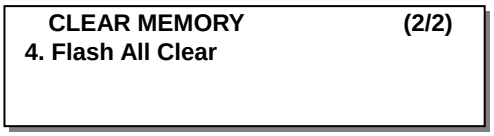
8180	CAL	ModE	FACTORY SETTING (1/2) 3. A/D Initialize 4. Linearity Adjust 5. Hysteresis Calibration

4.3 Memory Clear

(Calibration MENU -> 2. System Options -> 1. Clear Memory)

You can clear memory depends on options below.





4.3.1 Clear Report (Menu Code 8211)

(Calibration MENU -> 1. Calibration -> 8. Factory Setting -> 1. Clear Report)

You can clear all the sales report.

4.3.2 Clear All PLU (Menu Code 8212)

(Calibration MENU -> 1. Calibration -> 8. Factory Setting -> 2. Clear All PLU)

Clear all PLU data. This time discount data is will be cleared.

4.3.3 Clear All Table (Menu Code 8213)

(Calibration MENU -> 1. Calibration -> 8. Factory Setting -> 3. Clear All Table)

Clear all Table date(Except PLU/discount data).

4.3.4 Flash All Clear (Menu Code 8214)

(Calibration MENU -> 1. Calibration -> 8. Factory Setting -> 4. Flash All Clear)

NOTE: After clearing all the memory. You must install primary data.

Except the program data all the item and font data will clear at once.

4.4 Scale Type

Menu Code 8220 (Calibration MENU -> 2. System Options -> 2. Scale Type)

Select model: Basic type (CL5000-B), pole type, (CL5000-R, P, G), hanging type (CL5000-H), Self-service type(CL5000-S), Double-body type(CL5500-D)

CAUTION: Selecting wrong model code will effect on key function.

-1 : Basic type(CL5000-B)

-2 : Pole type(CL5000-R, P, G)

-3 : Hanging type(CL5000-H)

-4 : Self-service type(CL5000-S)

-5 : Double-body type(CL5500-D)

4.5 Printer Hardware

No.	Sub-menus	Description
1	Print Mode	Select label, ticket, continuous label mode.
2	Label / Ticket Size	Lable mode: **"Width(60)"**, **"Height(40)"** and **"Gap length(2)"** Ticket mode: **"Width(60)"**, **"Feed(20)"** and **"End Margin(5)"** Continous Label: **"Width(60)"**, **"Feed(40)"** and **"End Margin(2)"** * ( ) are default value.
3	Sensor Calibration	Enter the "**Gap(128)"** and **"Peel(128)"** values for printing sensor calibration. * The values in ( ) are default. * If you press "TEST" key, Gap and Peel values are adjusted automatically. * In case of Ticket mode, Gap value is not saved.
4	Sensor & Motor	Setting Peel-off sensor, Rewind Motor, Label Paper type.
5	Print Intensity	Set the extent of intensity of label (ticket) printed.
6	Adjust Feed Length	Set adjusting values of feed length. This value can be from -200 to +200. You can change sign(+,-) by pressing ZERO key. + value will print higher than THP. * Pressing "TEST" key automatically feeds to adjust the feed length.
7	Label Pre-print	You can set preprint length.
8	Printer Initialize	You can reset printer.

4.5.1 Print Mode (Menu Code 8310)

(Calibration MENU -> 3. Printer Hardware -> 1. Print Mode)

Press "1" to get into "PRINT MODE."

You can select "0" for Label mode, "1" for Ticket mode or "2" for Continuous Label mode.

Press "PRINT" to save current selection.

4.5.2 Label/Ticket Size (Menu Code 8320)

(Calibration MENU -> 3. Printer Hardware -> 2. Label/Ticket Size)

You can input "Width," "Height," "Gap Length" of label manually.

"TEST" key will automatically measures current label.

* Case of ticket mode "TICKET SIZE" will display and "TEST" key will not function.

4.5.3 Sensor Calibration (Menu Code 8330)

(Calibration MENU -> 3. Printer Hardware -> 3. Sensor Calibration)

You can input “Gap,” “Peel,” “Out of Paper” manually.

“TEST” key will automatically feed the label several times to calculate the measurement.

* For Ticket mode display will be same except “Gap” value. (This value will not save)

4.5.4 Sensor & Motor (Menu Code 8340)

(Calibration MENU -> 3. Printer Hardware -> 4. Sensor&Motor)

Press “4” to get into “SENSOR&MOTOR”.

You can select [Y], [N] for “ACTIVE PEEL-OFF,” “ACTIVE REWIND MOTER,” AND “LABEL PAPER.”

* For Ticket mode display will be same. Only “ACTIVE PEEL-OFF” can be set.

* For Ticket mode Rewind-Motor and Label paper setting will not display.

4.5.5 Print Intensity (Menu Code 8350)

(Calibration MENU -> 3. Printer Hardware -> 1. Clear Memory)

You can enter any value from “0” to “20” set the tension of label/ticket.

Press “TEST” to test printing a label.

4.5.6 Adjust Feed Length (Menu Code 8360)

(Calibration MENU -> 3. Printer Hardware -> 6. Adjust Feed Length)

User may enter any value of the feed alignment from “-200” to “+200”.

Press “ZERO” to toggle sign.

Press “TEST” to test feed or “ENTER” to save current “FEED Length value.

* 1pixel = 0.125mm , 8pixel = 1mm Ex) Value “+80” will feed 10mm more

Value “-40” will feed 5mm less

4.5.7 Label Pre-print (Menu Code 8370)

(Calibration MENU -> 3. Printer Hardware -> 3. Label Pre-print)

User may enter “Y(Yes)” or “N(No)” to select Preprint mode and any value of the preprint length from “0”mm to “10”mm.

Press “TEST” to test preprinting.

4.5.8 Printer Initialize (Menu Code 8380)

(Calibration MENU -> 3. Printer Hardware -> 8. Printer Initialize)

Initialize printer setting.

4.6 Network Options

5.6.1 Enable Interface (Menu Code 8410)

(Calibration MENU -> 4. Network Options -> 1. Enable Interface)

You can set usage of I/O interface.(CL5000)

8410	CAL	ModE	ENABLE INTERFACE (1/2) Ethernet(TCP/IP) :[Y] USB :[N] RS485 :[N]

ENABLE INTERFACE (2/2) PS/2 :[Y]

4.7 Self Test

4.7.1 Display Test (Menu Code 8510)

(Calibration MENU -> 5. Self Test -> 1. Display Test)

Selecting 1 will start Display test, press any key to stop and exit.

4.7.2 A/D Test (Menu Code 8520)

(Calibration MENU -> 5. Self Test -> 2. A/D Test)

8520	0	8333	A/D TEST (1/1) Normalized AD(AD1) – C1 value

You can select A/D level "0"~"5" to test.

NOTE: You can set ZERO temporally within each level. Exiting menu will not keep zero value.

Key No.	Name	Description
0	Weight – External value	kg or lb (◀ : kg, ▶ : lb)
1	Normalized(Zeroing) A/D	Internal count (60,000). Calibration Zero - A/D
2	Normalized A/D	Internal count (60,000)
3	Unit Factorized A/D	Unit Factor applied A/D value
4	Linearized A/D	Linear incising A/D value
5	Filtered Raw A/D	Filtered Raw A/D

4.7.3 Keyboard Test (Menu Code 8530)

(Calibration MENU -> 5. Self Test -> 3. Keyboard Test)

You can test keyboard by pressing.

8530	CAL	ModE	KEYBOARD TEST (1/1) Raw Code:[006C] Menu Key Flag::[0] Cnv.Code:[0003] Mode:[1]

KEYBOARD TEST (1/1)
Raw Code:[006C] Menu Key Flag:[0]
Cnv.Code:[0003] Mode:[1]
[ESC]=Exit,[PRINT]=Mode Change

KEYBOARD TEST (1/1)
Raw Code:[006C] Menu Key Flag::[0]
Cnv.Code:[0003] Mode:[1]
[0]=Sale, [1]=Program

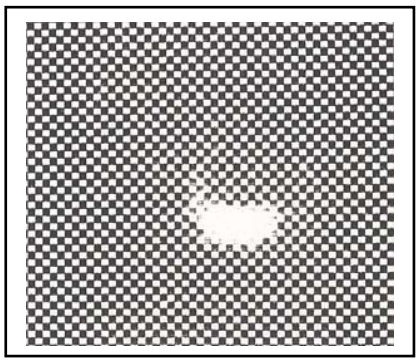
Press any keys to test Row Code and Conversion Code.

* Raw Code is location of key. (Upper left Connor is 1. For bench Type stars with 22)
* Conversion Code is function Code which has different code other then Raw Code.
* Menu Key Flag will set as 1 when “MENU” and other key is pushed same time.
* Press ESC will exit the test or change key mode.
  - ESC + ESC : End of test
  - ESC + PRINT key to change Mode
    Mode 0 : Sale Mode
    Mode 1 : program Mode

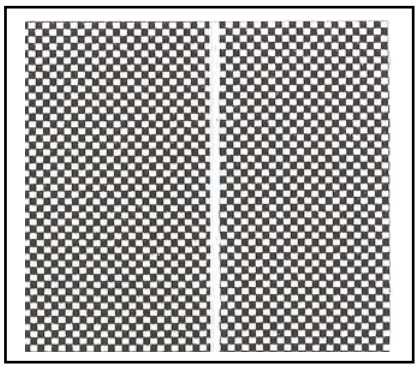
4.7.4 Chess Print (Menu Code 8540)

(Calibration MENU -> 5. Self Test -> 4. Chess Print)

Self Test Menu screen, press the 4 key for Printer Test. The scale will then print a TPH (Thermal Print Head) test label. This label print checker pattern helps to find problems with the TPH. You should clean the TPH before you try this procedure. Follow the maintenance procedure for cleaning the TPH. The following examples shows that some of problems that can occur.



1



2

There are several things that this printout sample can reveal:

1. The rubber roller may be dirty or have something stuck to it. Also, the roller may be perforated.
2. This is a clear indication that the TPH has been damaged or burned out.
   If you need to replace the TPH, please contact the CAS Service Department.

4.7.5 Printer Sensor Test (Menu Code 8550)

(Calibration MENU -> 5. Self Test -> 5. Printer Sensor Test)

You can test PEEL-OFF sensor and Head up sensor in real time to check each results.

8550	CAL	ModE	PRINTER SENSOR TEST (1/2) Peel-off :[UNLOCK] Head-up :[CLOSE]

PRINTER SENSOR TEST (2/2)
Gap :[63]
Peel:[114]

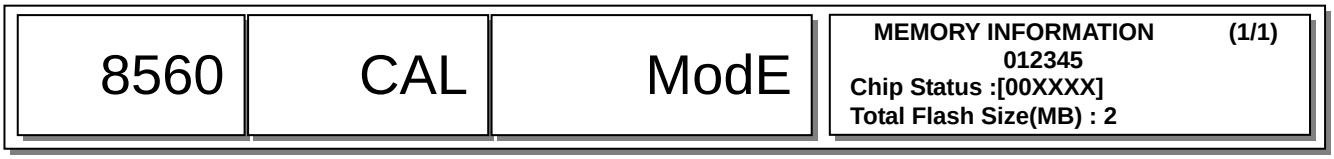
	Test Items	Description
1	Peel-off	Cheek Peel-off senor stops label
2	Head-up	Cheek TPH head is open or not
3	Gap	Cheek label's gap
4	Peel	Peel-off sensor value

4.7.6 Memory Information (Menu Code 8560)

(Calibration MENU -> 5. Self Test -> 6. Memory Information)

You can install expansion memory-pack up to 6MB

Current memory show as O unused memory as X (each 0 is 1MB). Total amount of O is valuable memory.



4.7.7 Firmware Version (Menu Code 8570)

(Calibration MENU -> 5. Self Test -> 7. Firmware Version)

You can cheek scale's firmware for upgrade.

This information defines main feature and debugging.

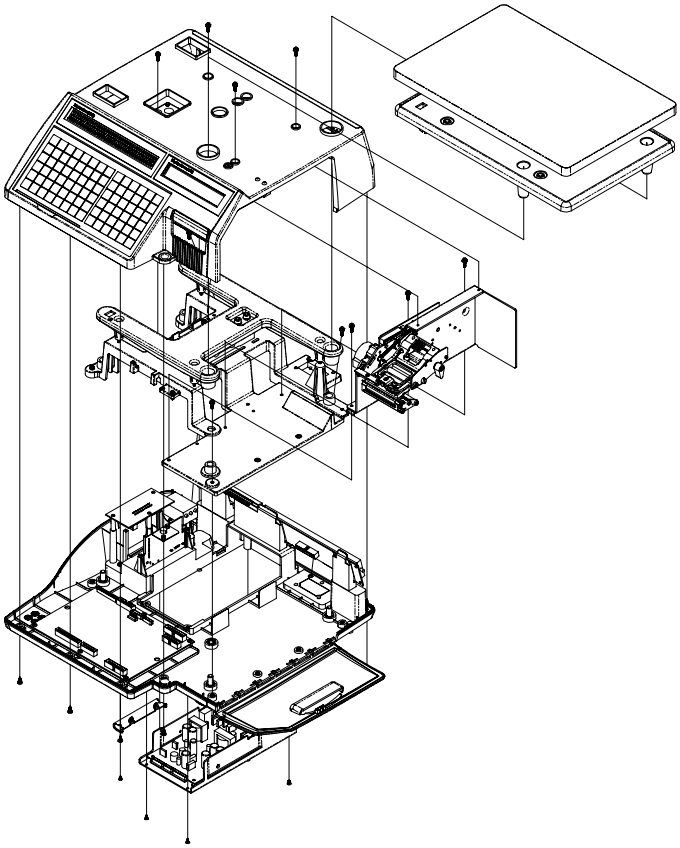
#1 Scale Main Firmware Version

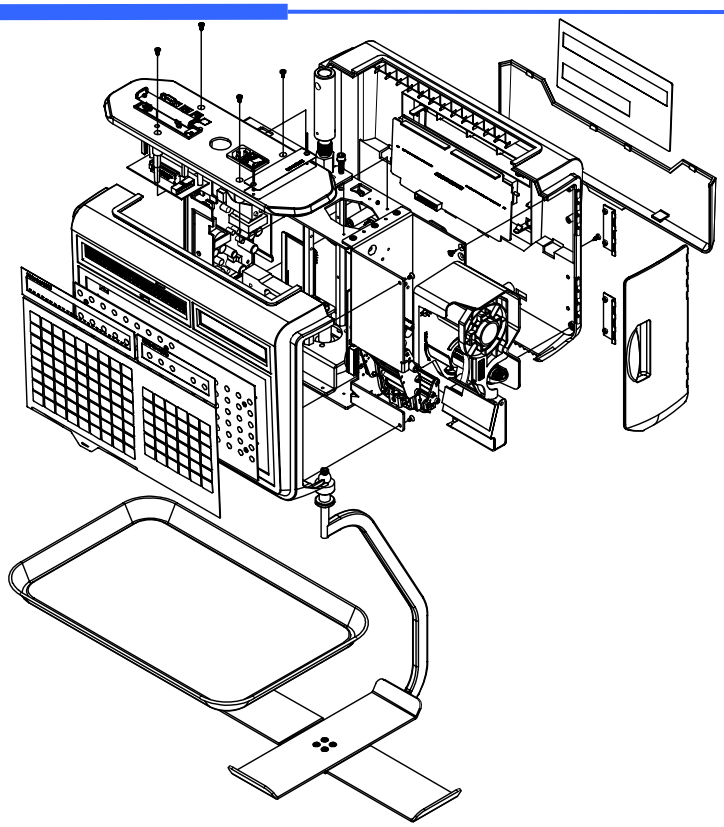
#2 AD Module Firmware Version

#3 Ethernet Version

#4 Data Version

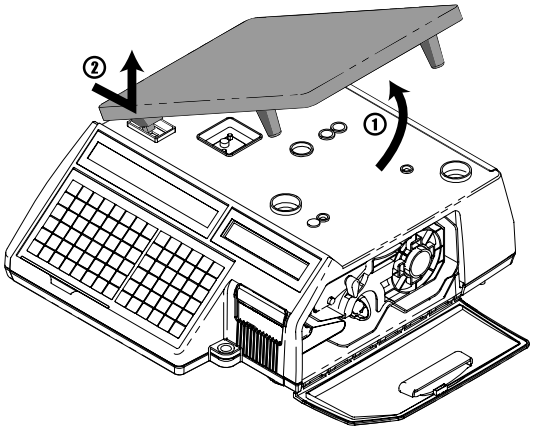
5. Servicing & Parts Replacement

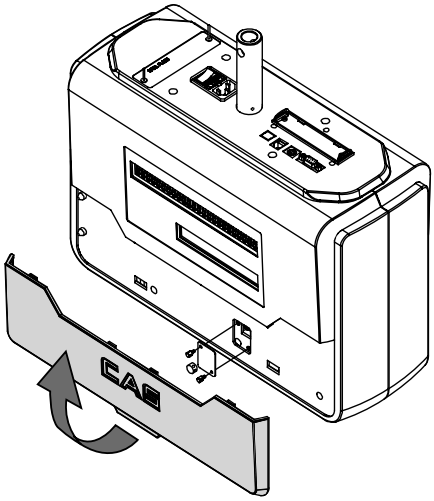




5.1 Platform Safety Overload Adjustment

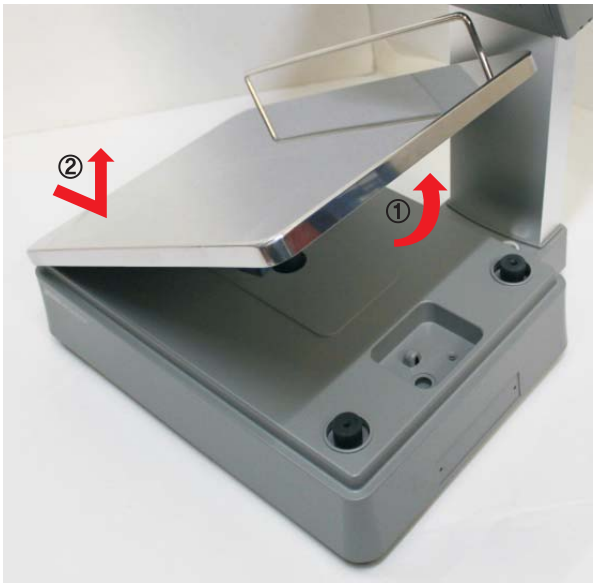
1) Turn power off and remove power cord
2) Remove tray from scale (make sure lift right side first and unlock the left hook)



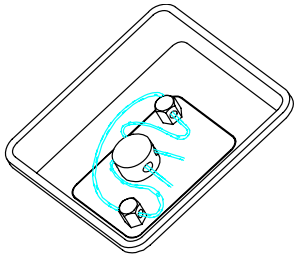


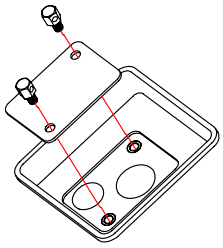
CL5500-D

1) Turn power off and remove power cord
2) Remove tray from scale



3) Remove calibration cealing



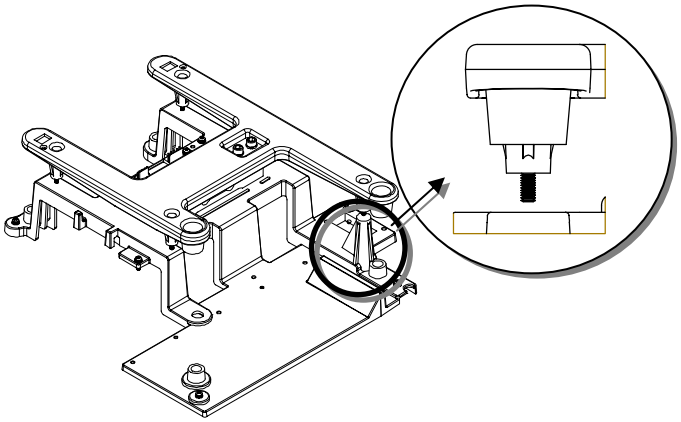


4) Remove the upper case

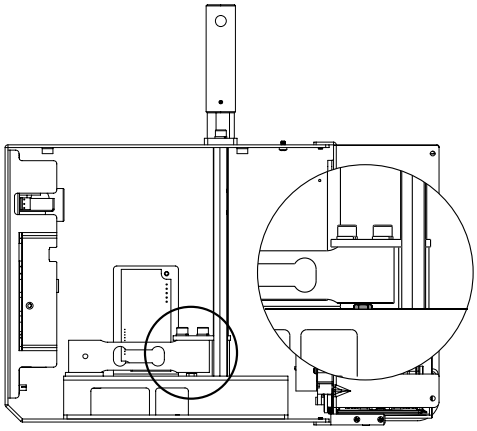
5) Put 150% of max weight on platform rear right. This point Allen-bolt should not be touched

6) Adjust Allen-bolt just about to touch the bottom frame

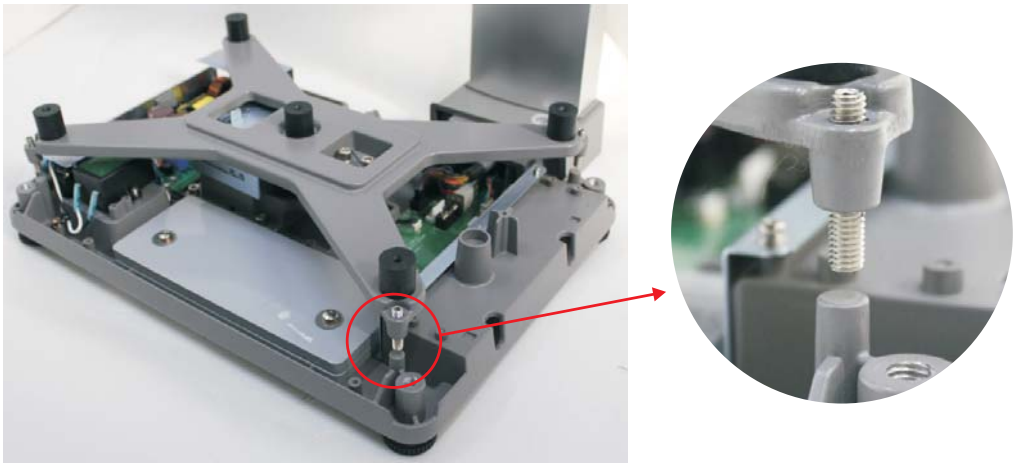
7) Contiune the procedure on each corner



B,P,R,G-type



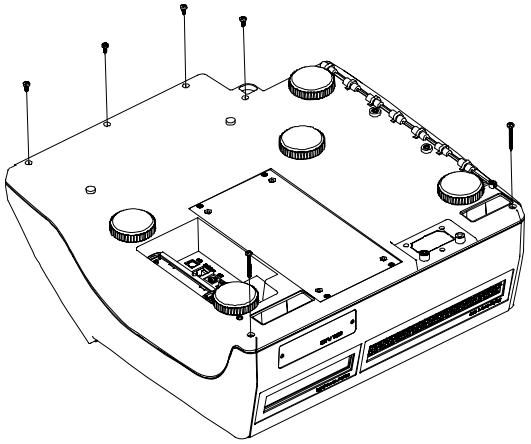
H-type

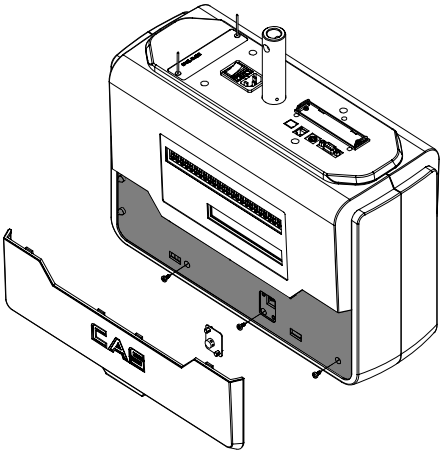


D-Type

5.2 Removing the Upper Case

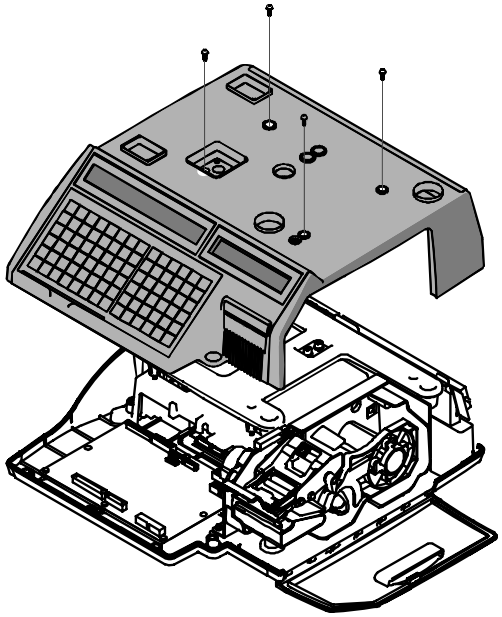
1) Turn power off and remove power cord
2) Remove tray from scale (make sure lift right side first and unlock the left hook)
3) Remove printer cartridge
4) Remove 6 bolt from bottom case(for pole type: remove pole mount bolt first)

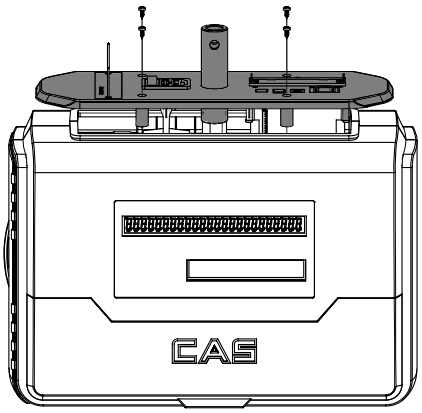




For hanging type: remove 3 bolt from front cover

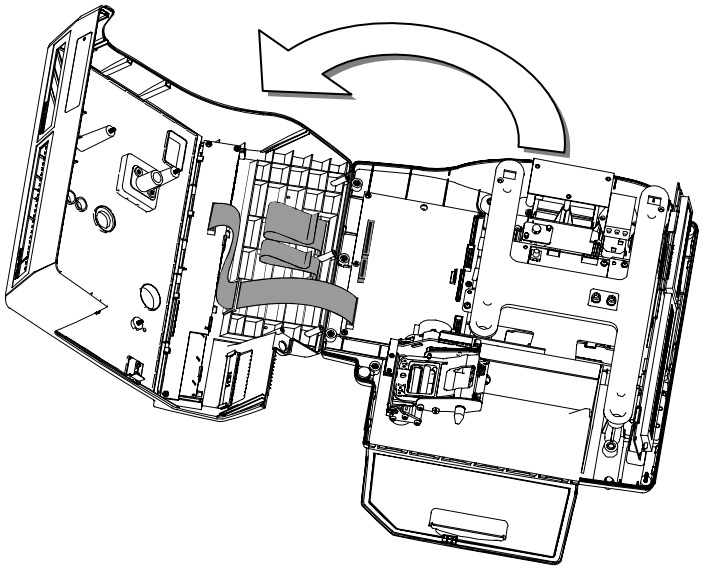
5) Remove 4bolt from upper case





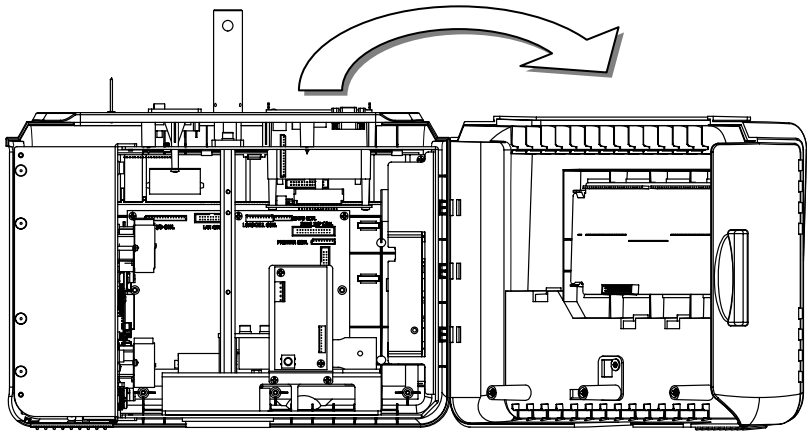
6) Remove keybord and display cable to remove upper case

B,P,R,G type:



* Carefull with front key pad connector

H type:



* Open up front cover from printer part.
NOTE: Assemble hook part first.

Remove front cover bolt (2 bolt)

Open up from printer side to disassamble front cover

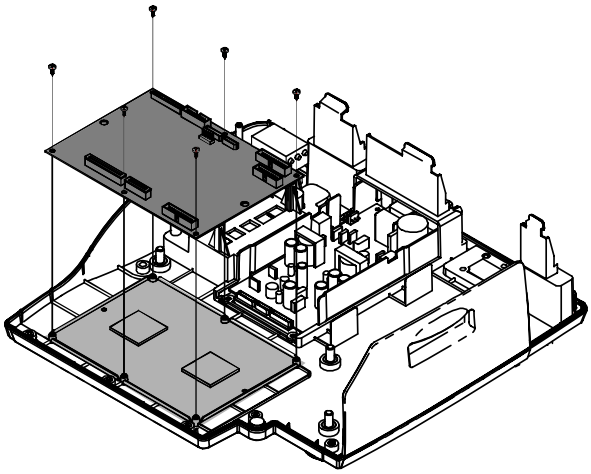
CL5500-D

1) Remove head cover bolt (4 bolt)
2) Open up from printer side to disassamble head cover

5.3 Main board Replacement

1) Turn power off and remove power cord
2) Remove following cables
   - SMPS Line
   - Key Board Line
   - Display Board Line
   - Printer Board Line
   - A/D Board Line
3) Remove following bolt to remove main board

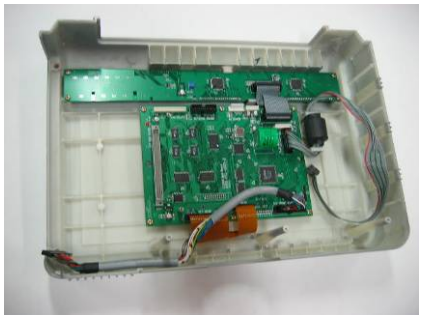
B,P,R,G type:



Connector locations

H type:

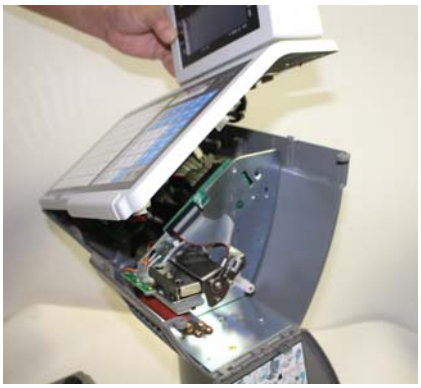
1. remove power cable from SMPS and ground wire.



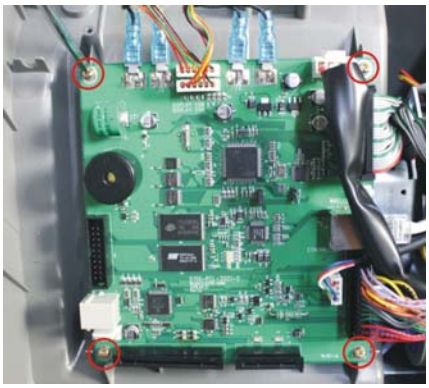
2. Remove support frame and replace main board.

CL5500-D

1) Remove bolt & open up head cover



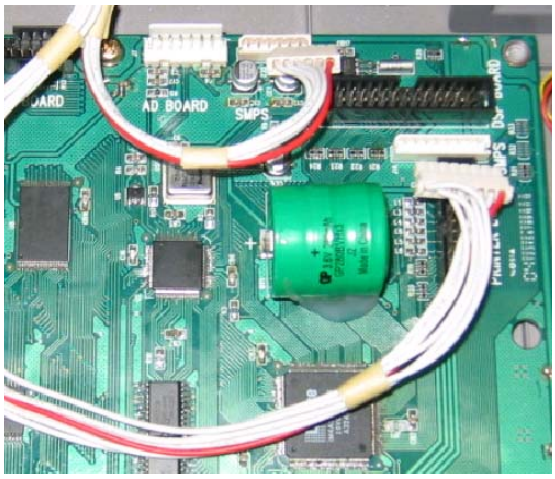
2) Remove all cable & bolt



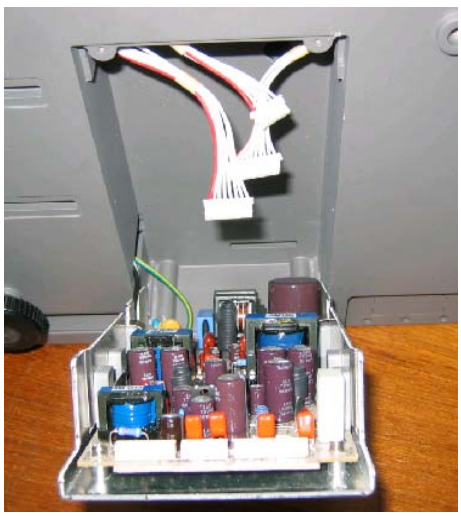
3) Replace main board

5.4 Power Supply Replacement

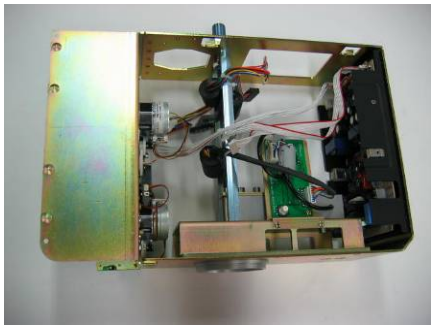
1) Turn power off and remove power cord
2) Remove upper case(following 6.2)
3) Remove power lines (white cables)

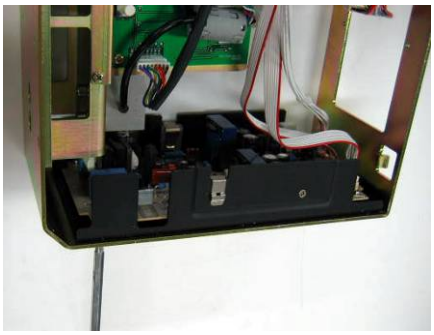


4) Remove bottom Power module(SMPS) bolt(4)



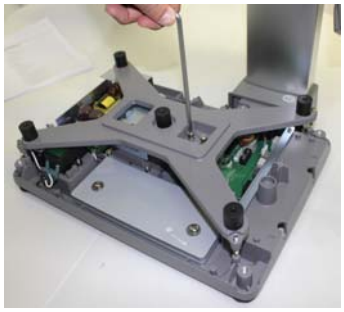
5) Full forward power module and remove power cables on SMPS





6) Disassamble support frame and remove side bolt(4) to remove power supply.

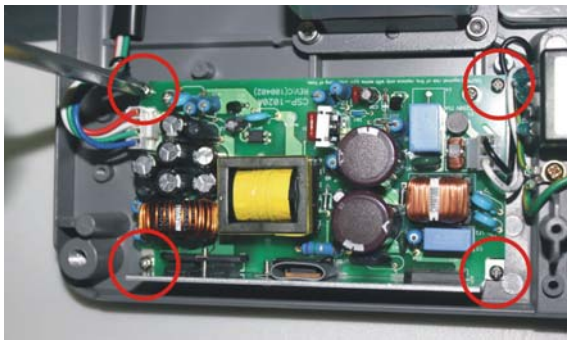
CL5500-D



1) Turn power off and remove power cord

2) Remove upper case

3) Remove upper platform

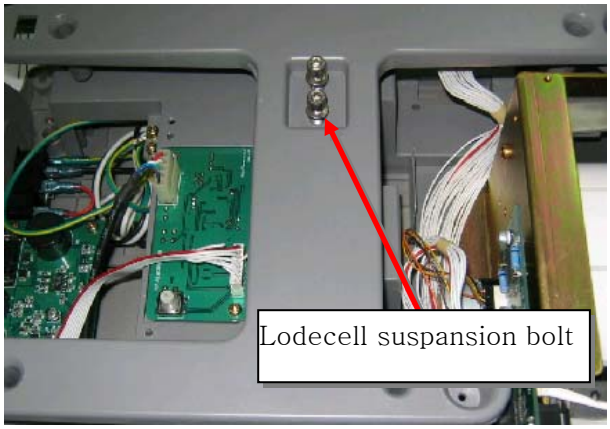


3) Remove SMPS Protect cover & bolt

4) remove power supply(SMPS)

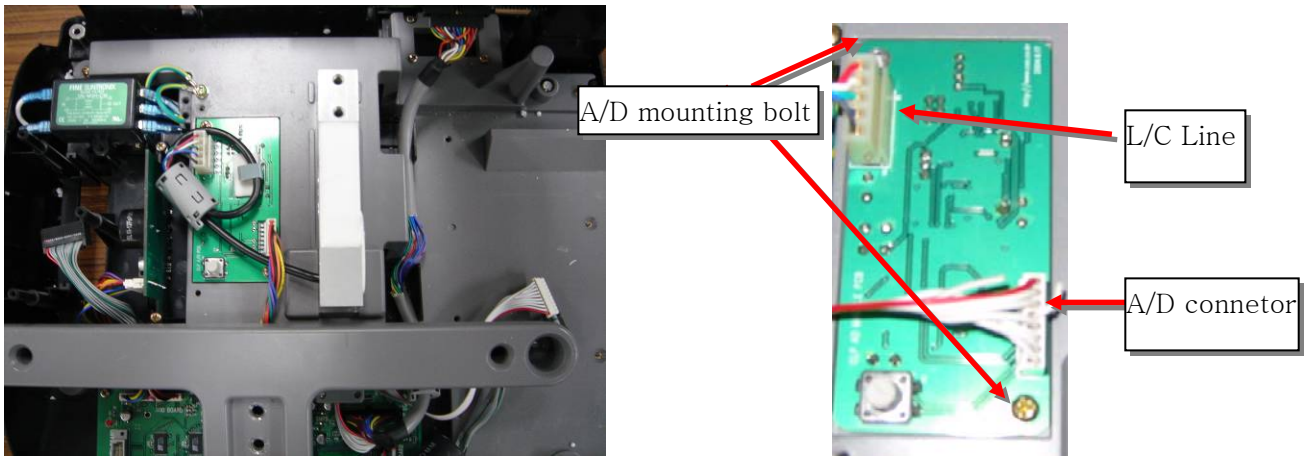
5.5 Load Cell & AD Converter Replacement

1) Turn power off and remove power cord
2) Remove upper case(6.2)
3) Remove upper frame(Load cell moult)bolt

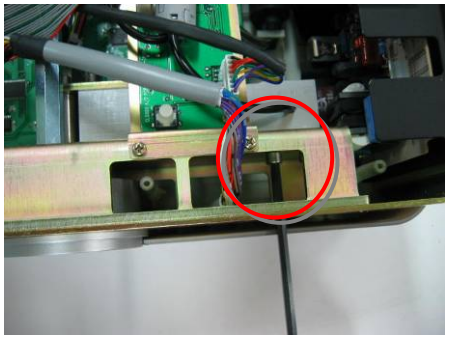


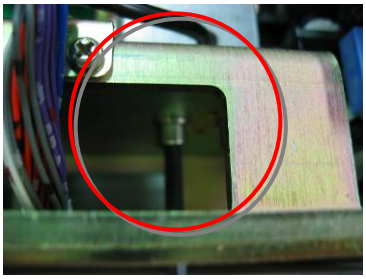
4) Remove bottom frame bolt

NOTE: Carefull with load cell this procedure may cause critical damage on scale



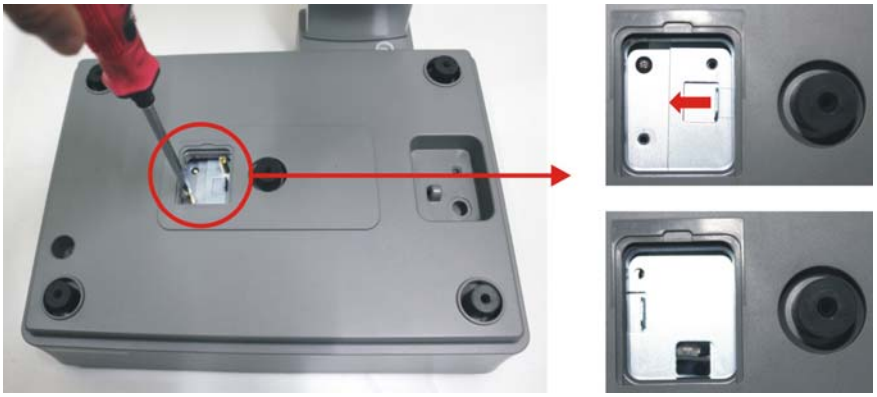
5) Remove A/D module bolt(2) and cable(A/D data line, L/C line)
6) For H type: Remove LC suspension bolt from bottom fram (there are two holes for easy access)



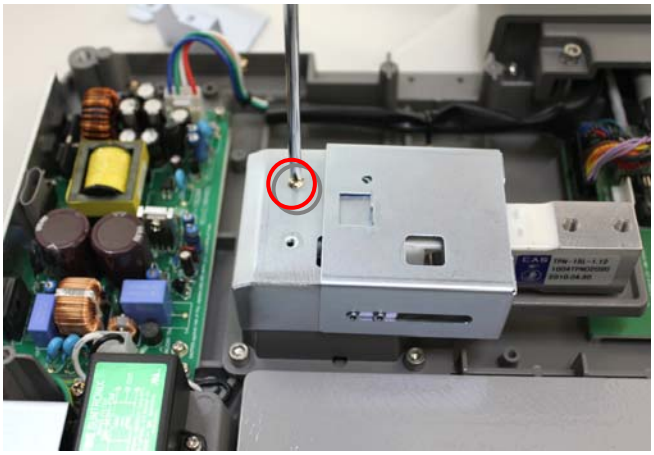


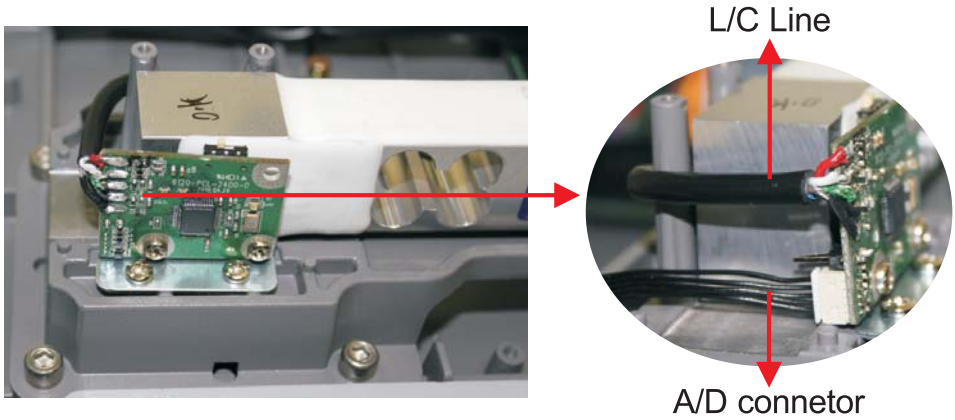
CL5500-D

1) Turn power off and remove power cord
2) Remove Seal bolt (2 ea)
3) Remove upper case



4) Remove sealing cover bolt



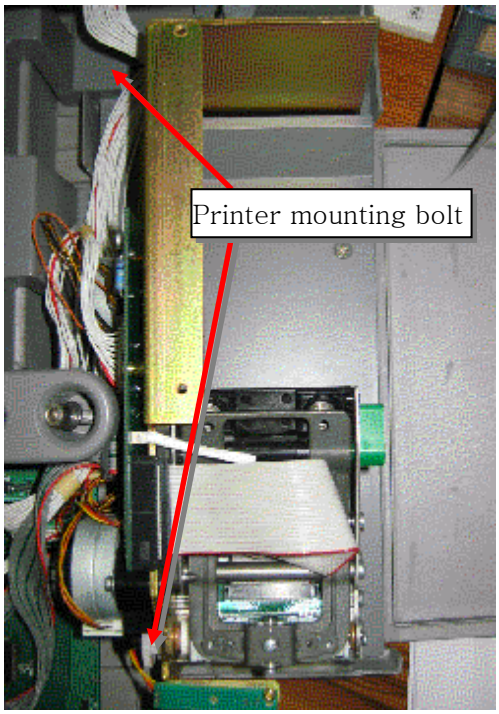


5) Remove bottom plate bolt (2ea)

NOTE: Carefull with load cell this procedure may cause critical damage on scale

5.6 Print Assembly Replacement

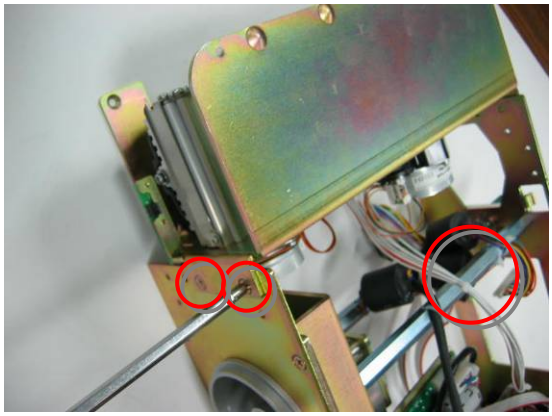
1) Turn power off and remove power cord
2) Remove printer cartridge
3) Remove upper case(6.2)
4) Remove printer connecting bolt



(B,P,R,G type)

(H type)

NOTE: You must remove center collom first

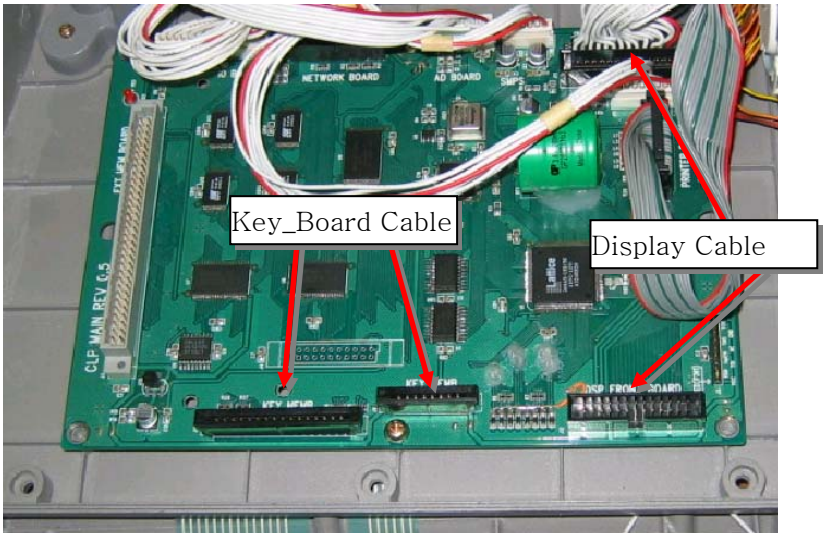


D –type

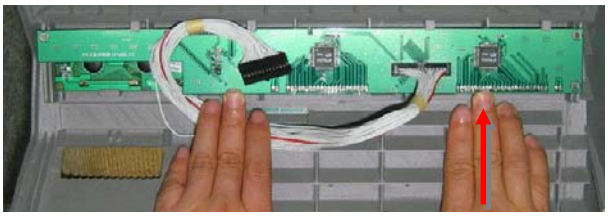
5) Remove printer module (lift upper right side first)
6) Reference following exploed view

5.7 Display Replacement

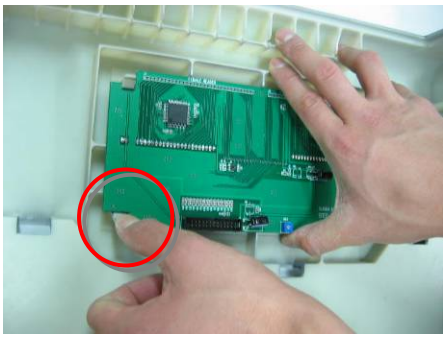
1) Turn power off and remove power cord
2) Remove upper case (6.2)
3) Remove keyboard and display cable of main board



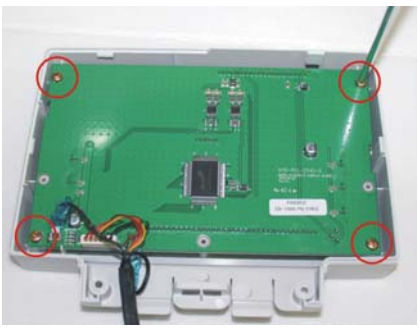
4) Remove front display board B,P,R type: lift display board at arrow side
   Remove rear display board by lifting bottom part to unlock



5) Remove Front, Rear display by unhook support part.



CL5500-D

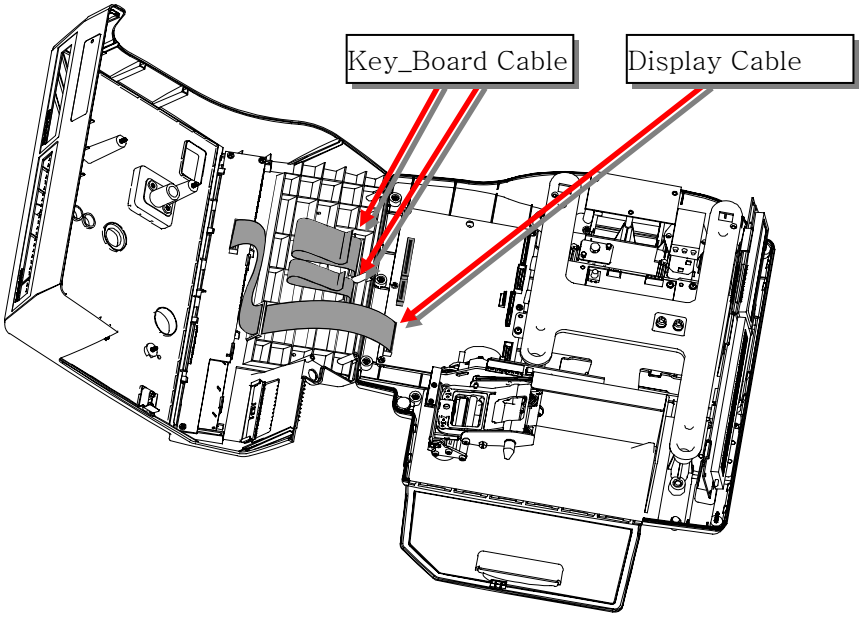


1) Remove display case by unhook support part (head + display case)
2) Both are divided into separate (Display case)
3) Remove cable & bolt

5.8 Keyboard Replacement A,B(with / without breaking sealing)

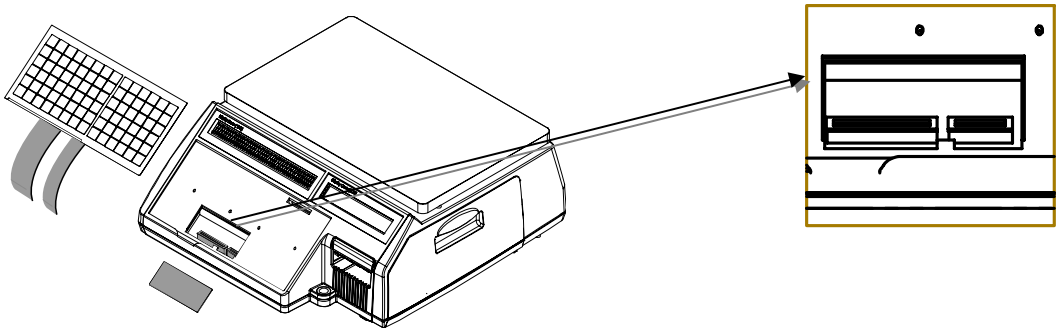
A: with break sealing

1) Turn power off and remove power cord
2) Remove upper case(6.2)
3) Remove keyboardm display cable from main bord and replace new keyboard



B: without break sealing

4) Remove keyboard from upper case
5) Remove keyboard support plate and disconnect key board cable by pull the calble lock
6) Connect keyboard cable by pushing keyboard suspend lock / add metal support plate
7) Stick the keyboard pad



H-type

-Remove keypad cover and metal dome cover

CL5500-D

1) Remove headcover bolt (4 bolt) (5.2)
2) Open up from printer side to disassemble (5.2)
3) Remove keypad from headcover

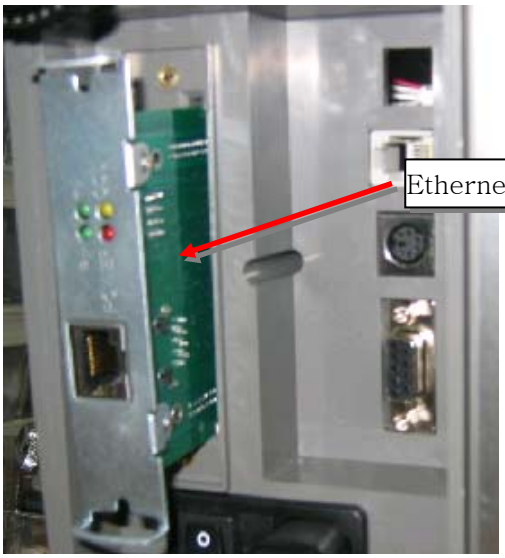
6. Installing Options

Additional expansion memory and network card is available for ungrade

6.1 Installing Ethernet Card

1) Turn power off and remove power cord
2) Remove Ethernet card cover

3) Insert Ethernet card onto slot (use same slot for wireless module)



B, P, R, G type

H type

4) Turn on power when installation is finished
5) Set up communication configuration (menu code:1900)

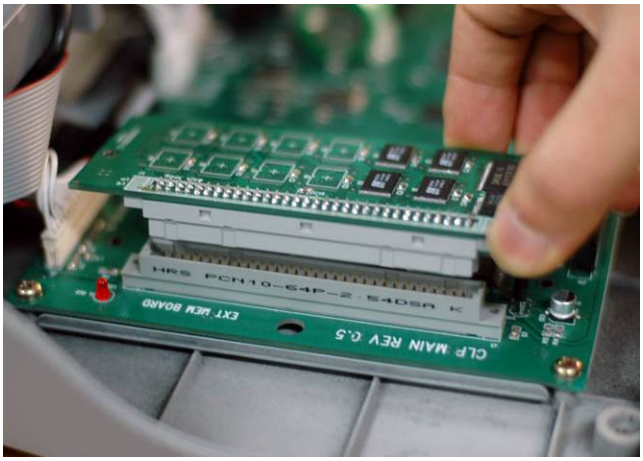
6.2 Installing Wireless Lan Card

1) Turn power off and remove power cord
2) Remove Ethernet card cover
3) Insert Wireless LAN Card.
   i. Insert local wireless CF card
   ii.

4) Turn on power when installation is finished

6.3 Installing Memory Expension Card

5) Turn power off and remove power cord
6) Remove Upper Case
7) Insert Memory Expension Card.



8) Turn on power when installation is finished

7. Update

7.1 F/W update (CL5000)

NOTE: While you are turning on the scale, you must PUSH CAL botton.

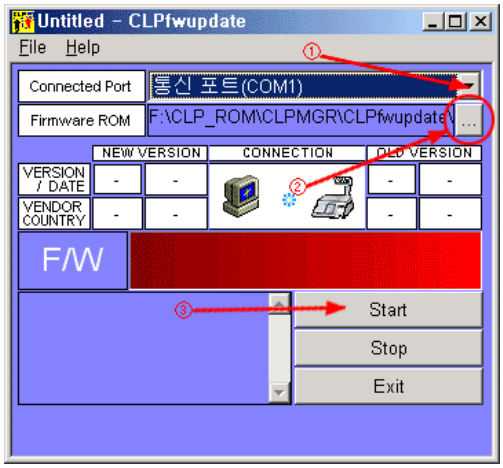
If you didn't follow this procedure, scale will not accept any signal from PC.

Step1: Connect RS232C to computer

Pin-layout is following diagram

Scale(DB-9 Female)		PC (DB-9 Male)
(2)	----------	(3)
(3)	----------	(2)
(5)	----------	(5)

Step2: Play CLPfwupdate.exe



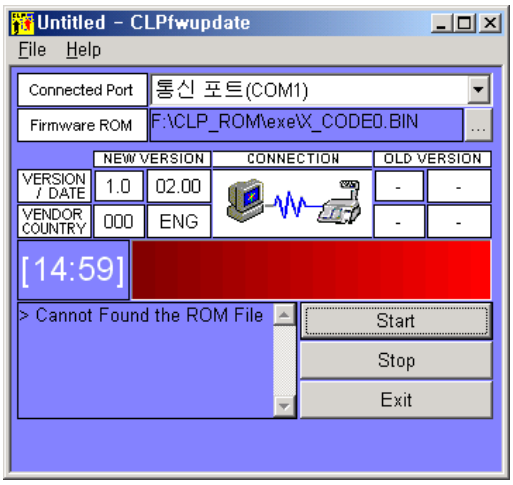
Step2: Select RS232C communication port by pressing ①

Step3: Select new firmware ROM pressing ②

Step4: Press Start , ready to F/W –ROM download

* Software will not download if the firmware version is old or file desination is wrong

Window massage will show error massage

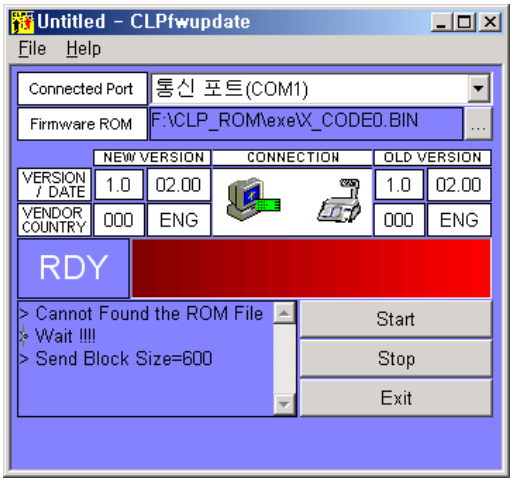


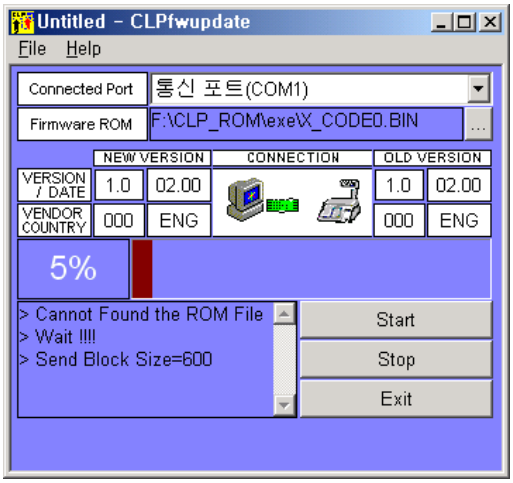
Step5: Turn off the scale to get scale ready

Step6: Turn on the scale while CAL botton is pushed. (at this point display will show “RDY”)

NOTE: If CAL botton isn’t pushed, scale will not accept any signal from PC.

After few second download process will occure

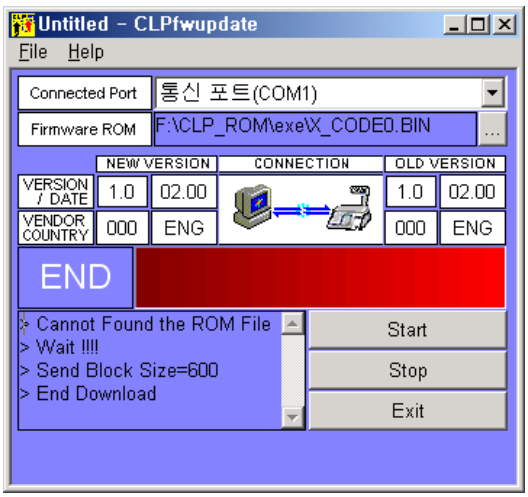




When download finish scale will reboot

NOTE: During this procedure power or communication connector is cut off

You must redo from step1



7.2 F/W update (CL5500)

NOTE: While you are turning on the scale CAL Switch has to be on

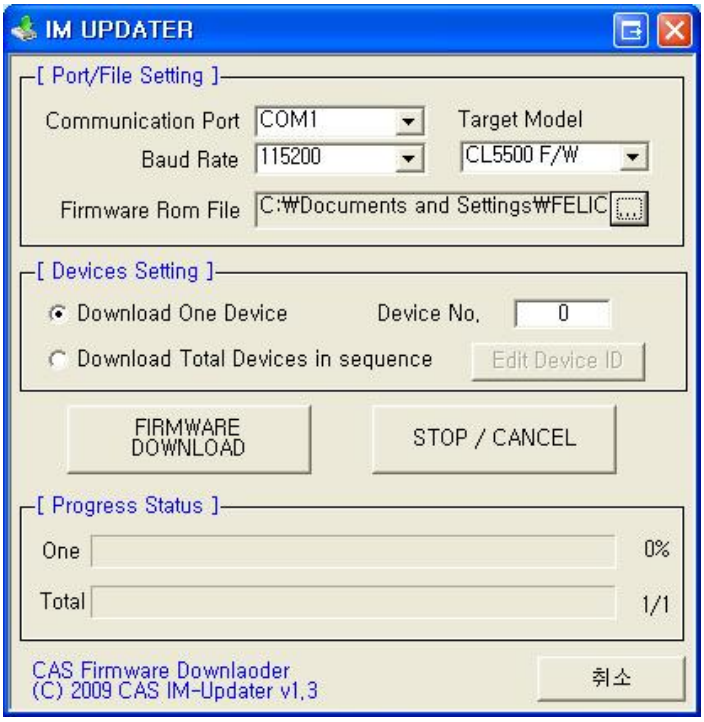
If you didn't follow this procedure, scale will not accept any signal from PC.

Step1: Connect RS232C to computer

Pin-layout is following diagram

Scale(DB-9 Female)		PC (DB-9 Male)
(2)	----------	(3)
(3)	----------	(2)
(5)	----------	(5)

Step2: Play IM Updater.exe



Step2: Select RS232C communication port by pressing

Step3: Select Baud Rate '115200'

Step4: Select Target Model 'CL5500 F/W'

Step5: Select new firmware ROM pressing

Step6: Press FIRMWARE DOWNLOAD , ready to F/W –ROM download

* Software will not download if the firmware version is old or file desination is wrong

Window massage will show error massage

Step7: Check CAL Switch position ON(left), And then Turn on the scale

NOTE: If CAL Switch isn't ON, scale will not accept any signal from PC.

After few second download process will occure

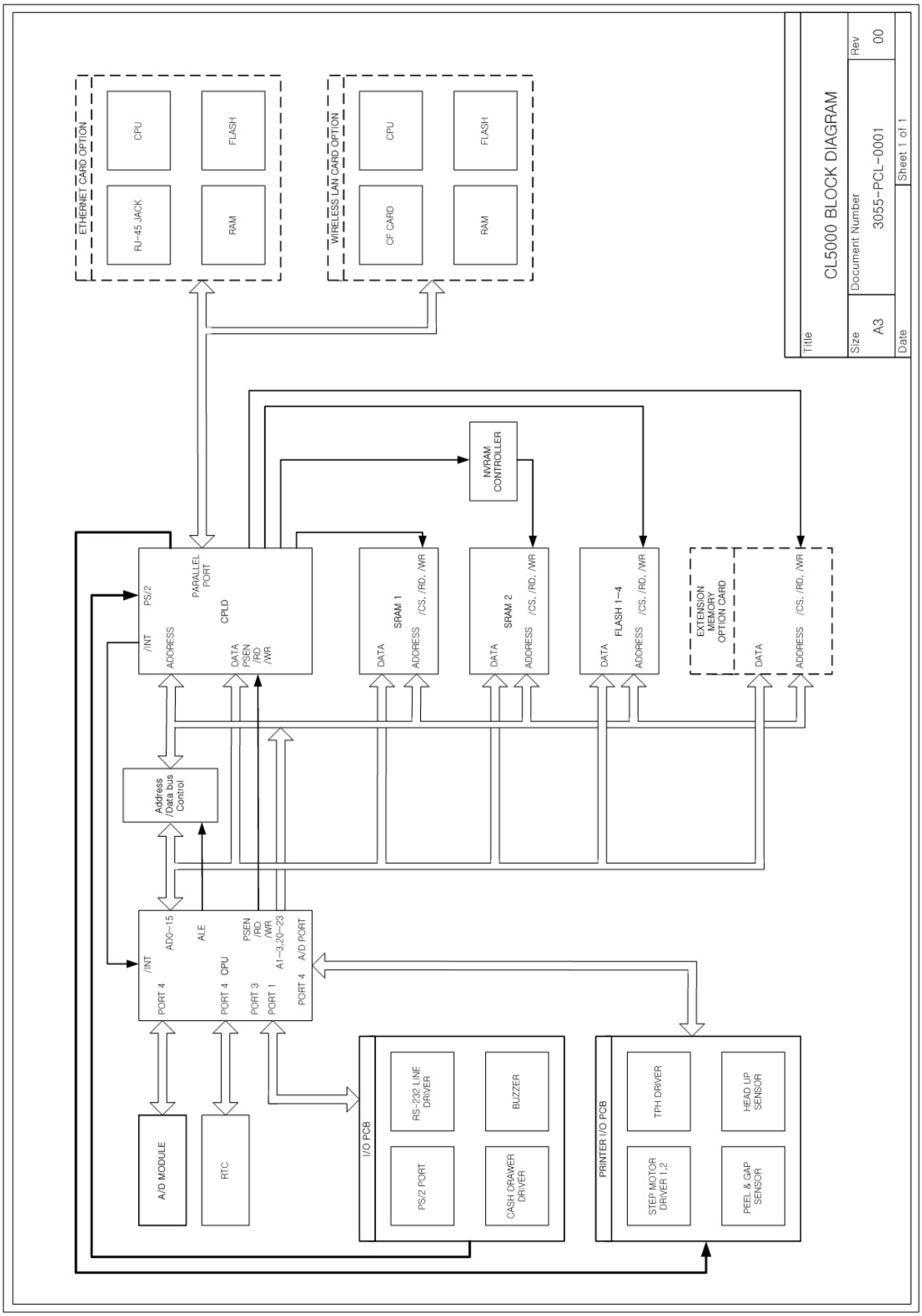
When download finish scale will reboot

NOTE: During this procedure power or communication connector is cut off

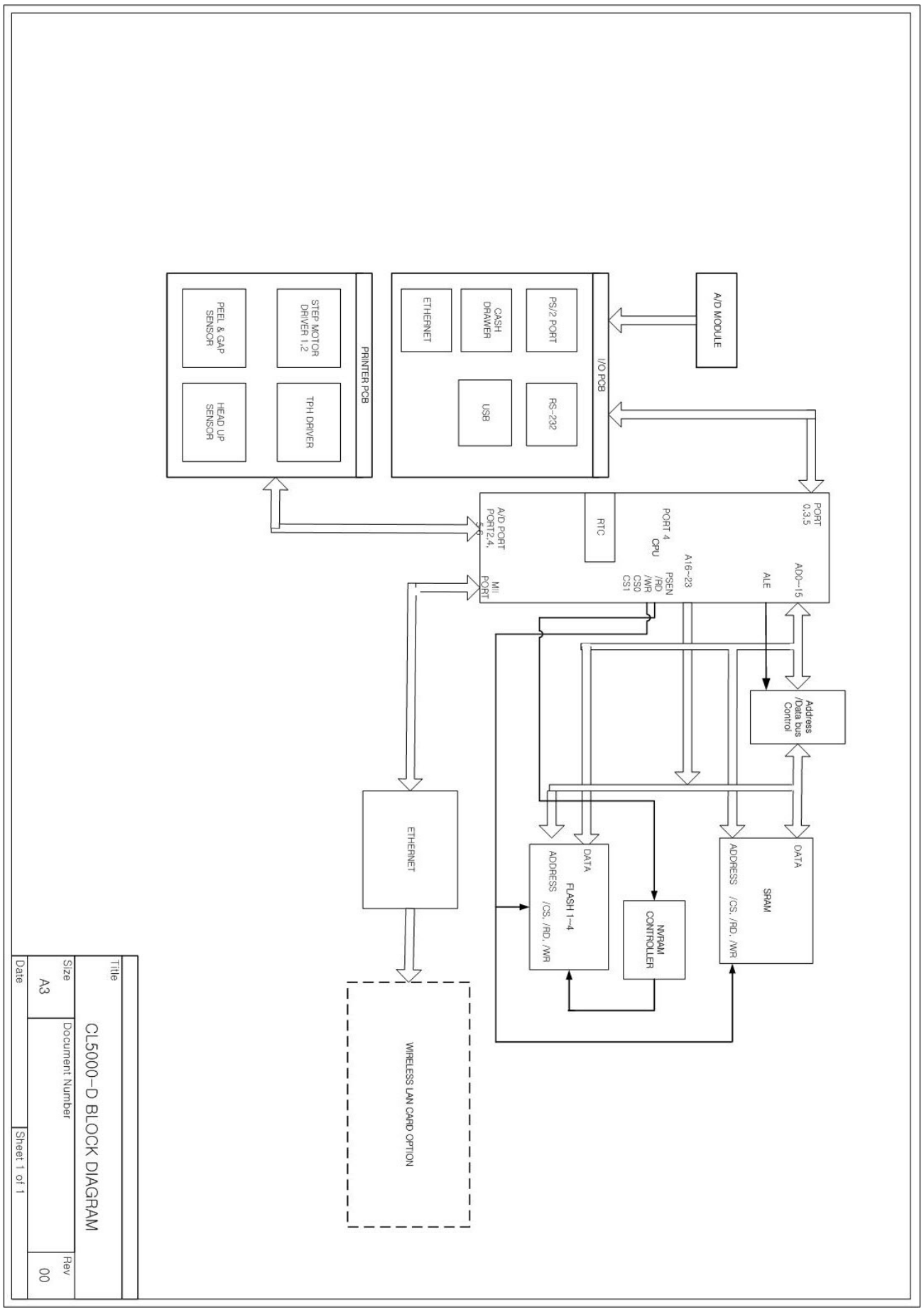
You must redo from step1

8. Schematic & Diagrams

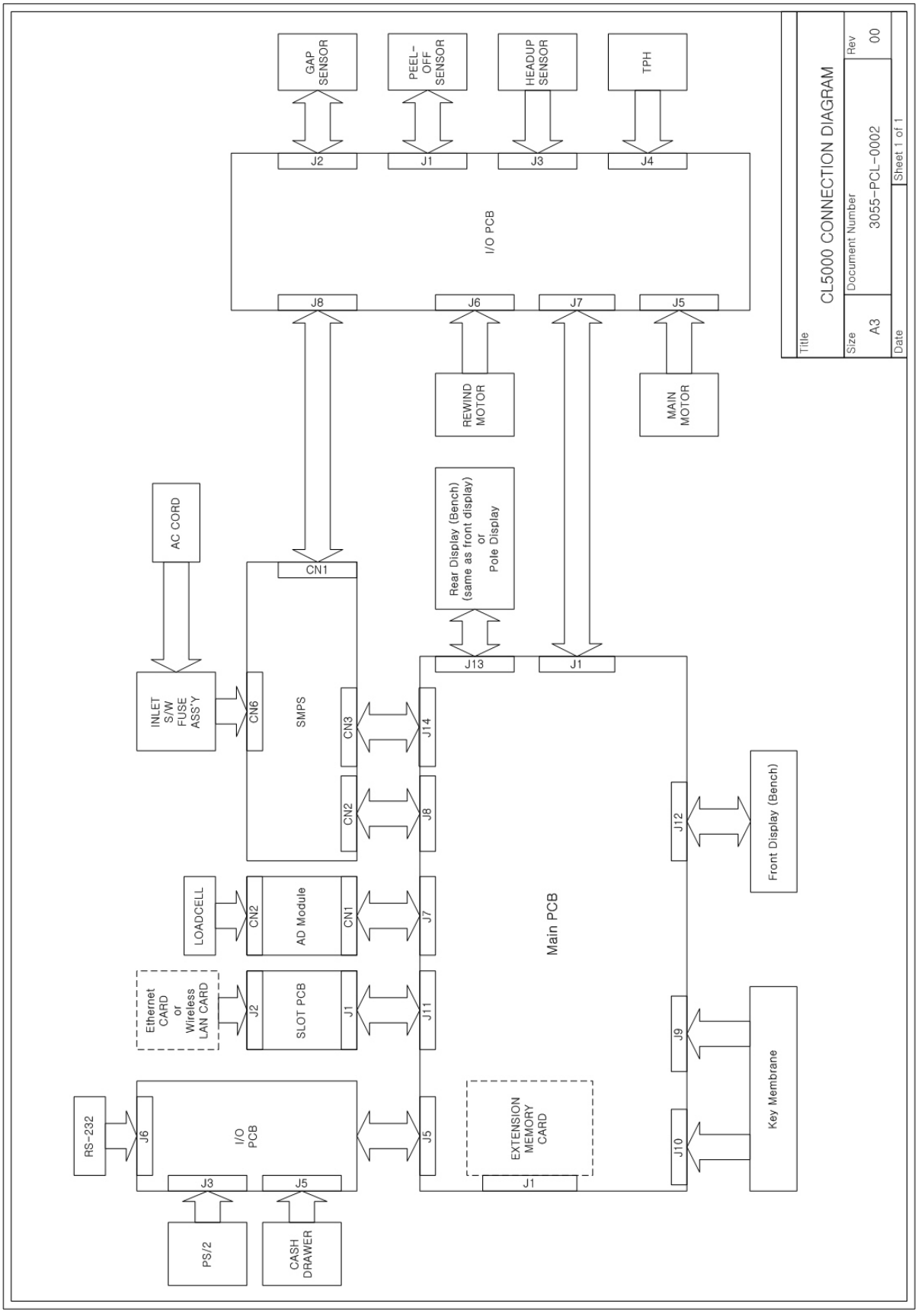
8.1.1 System Block Diagram (CL5000-B,P,R,G,S,H)



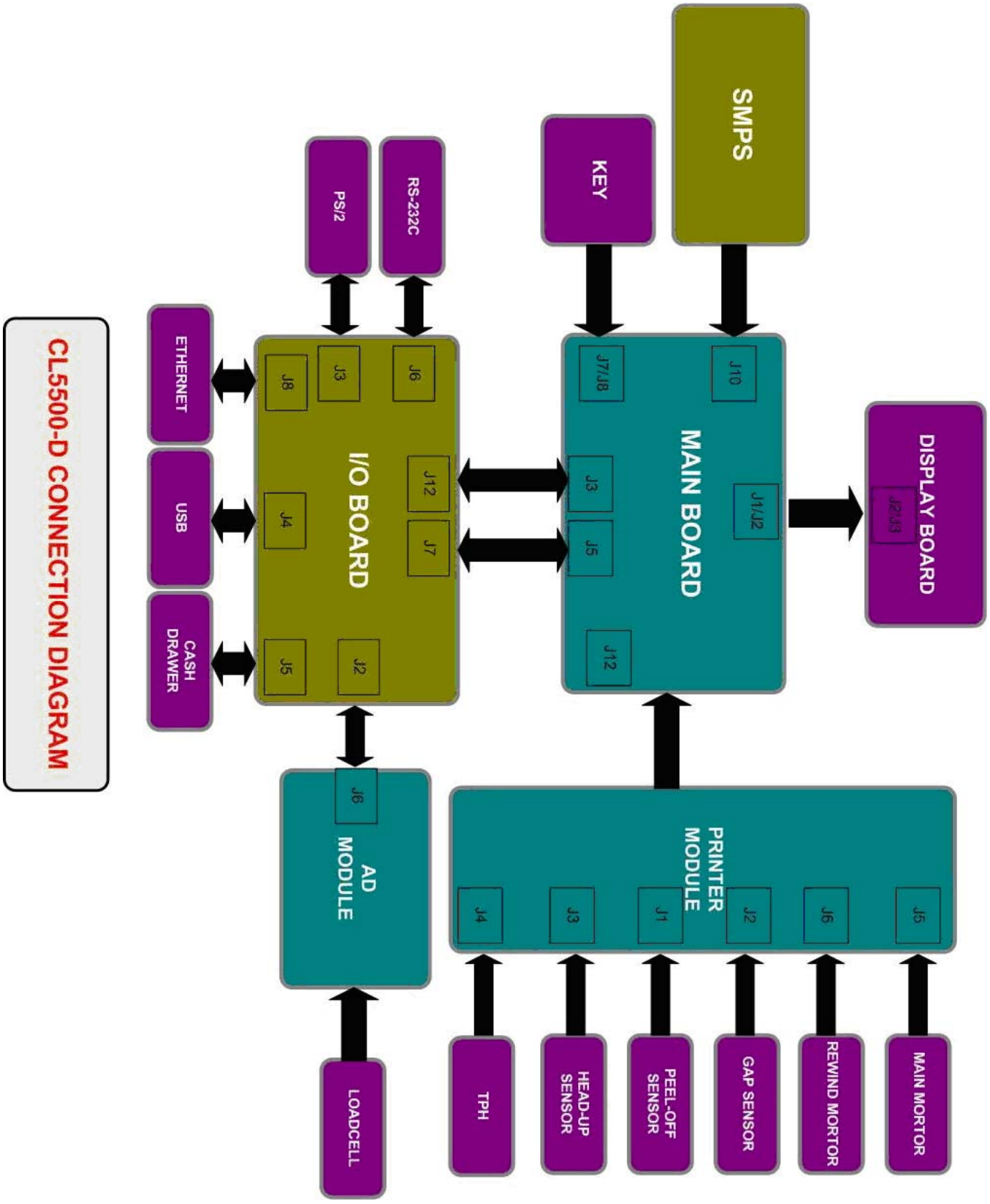
8.1.2 System Block Diagram (CL5500-D)



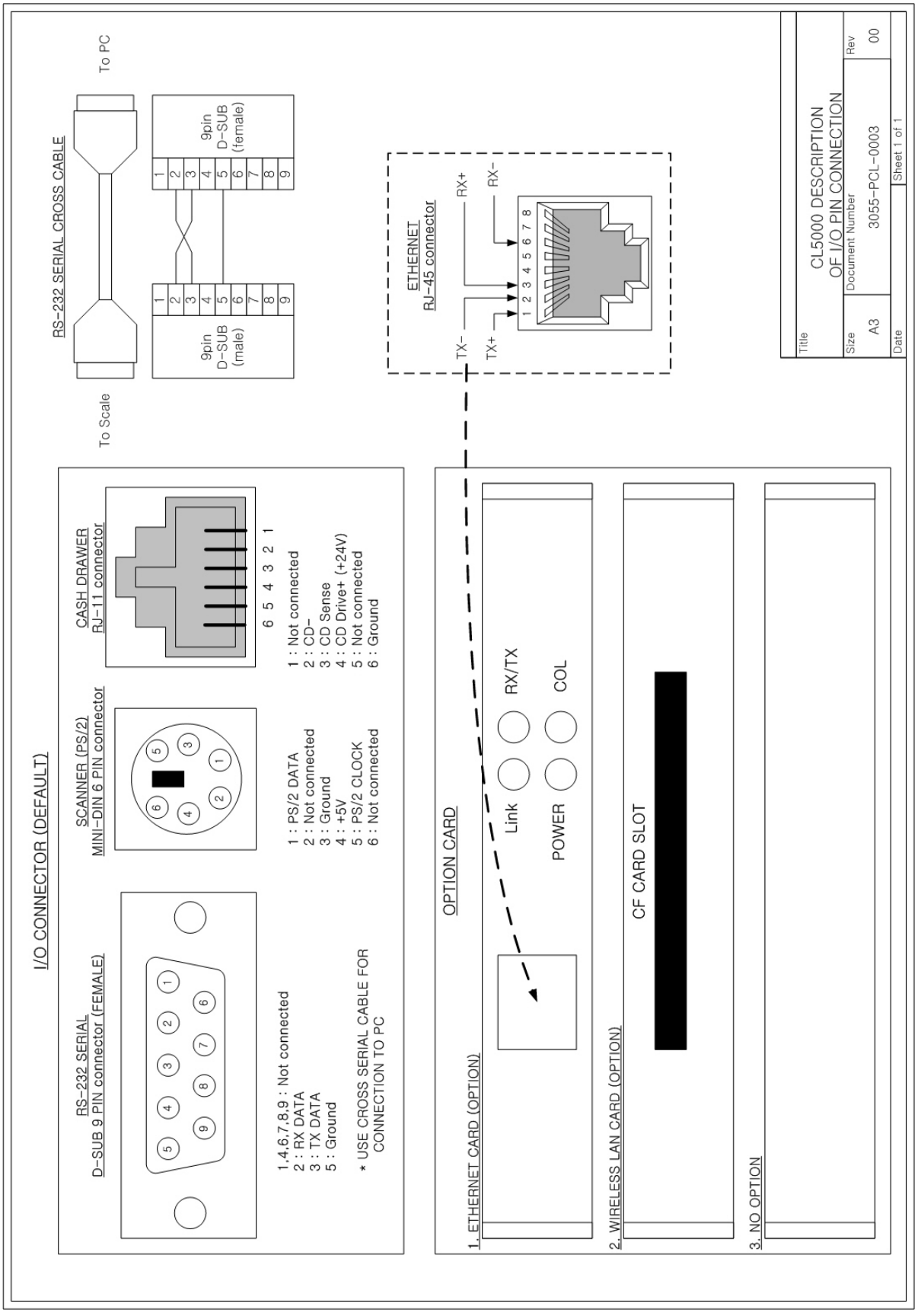
8.2.1 Connection Diagram (CL5000-B,P,R,G,S,H)



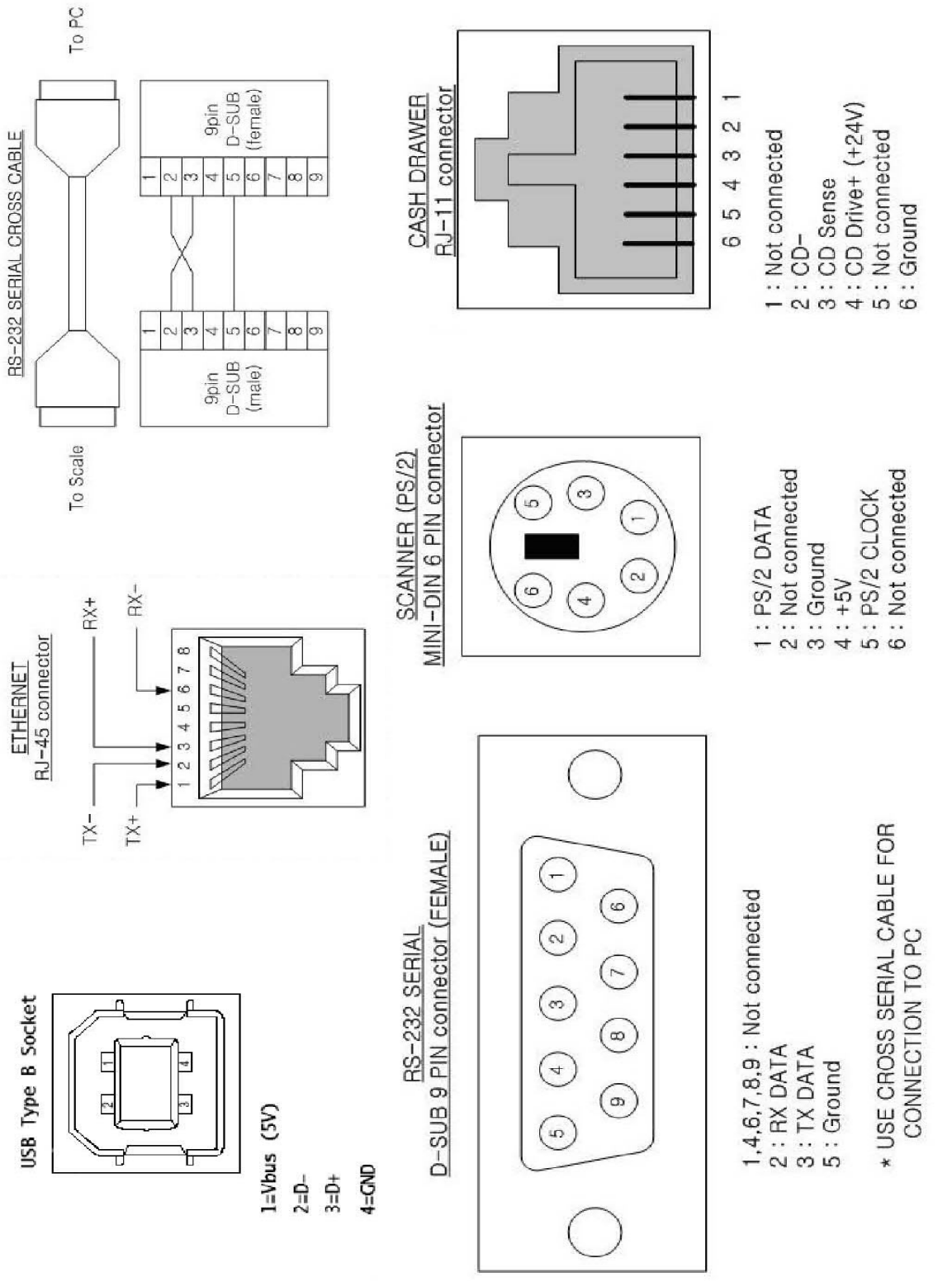
8.2.1 Connection Diagram (CL5500-D)



8.3 I/O Pin Connection (CL5000-B,P,R,G,S,H)

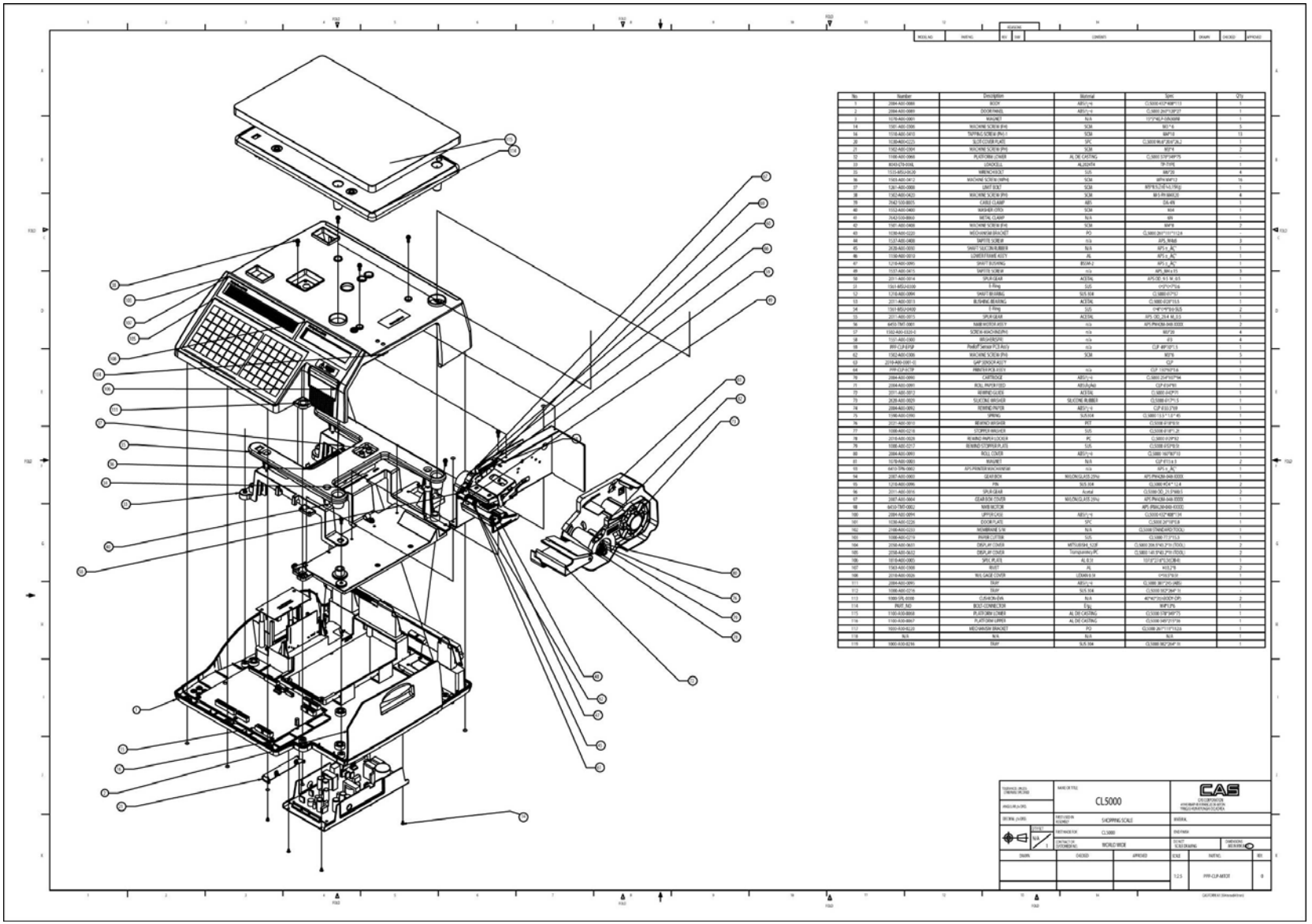


8.3 I/O Pin Connection (CL5500-D)

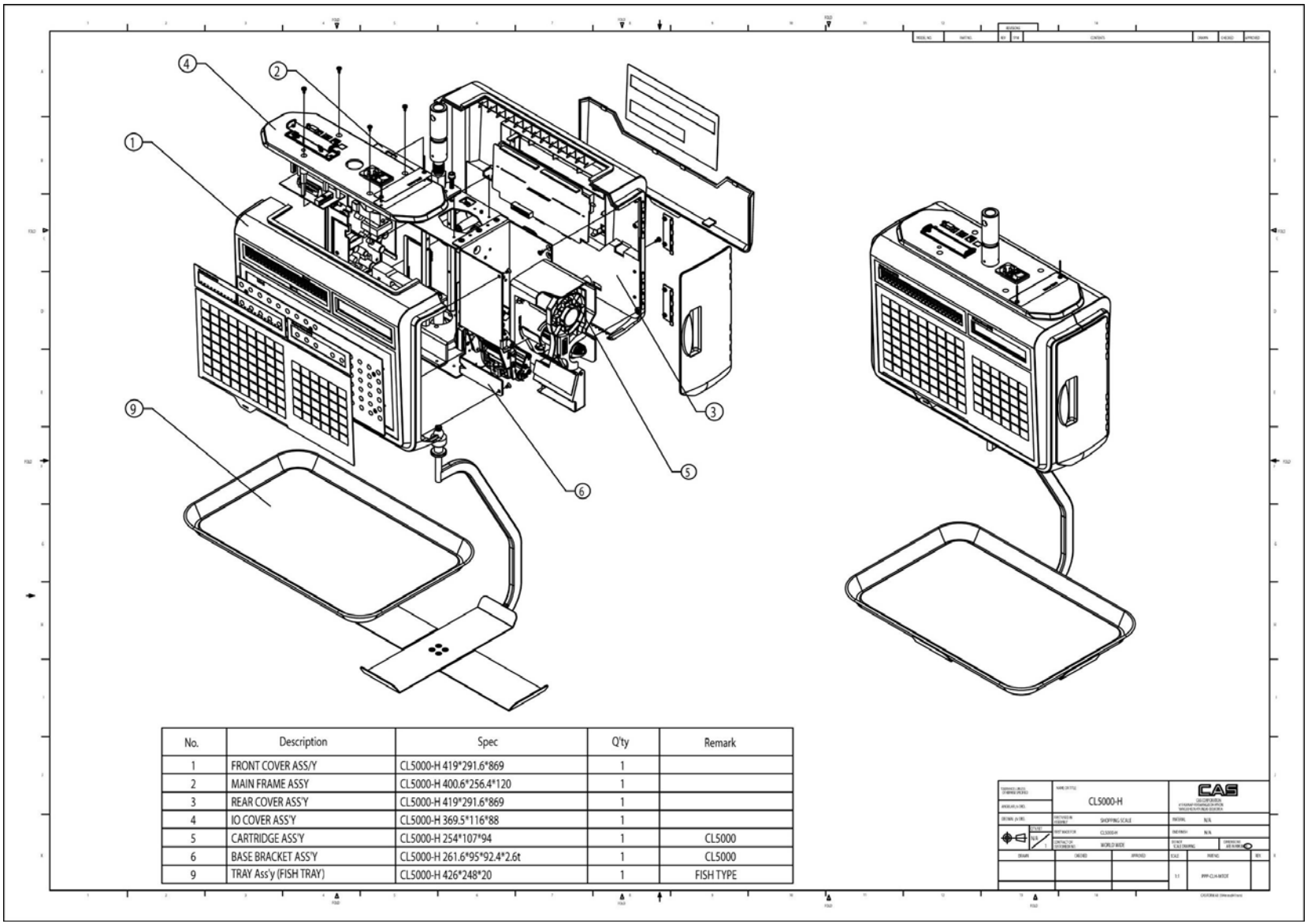


9. Exploded Views

9.1 Scale Assy (B,P,R,G-type)

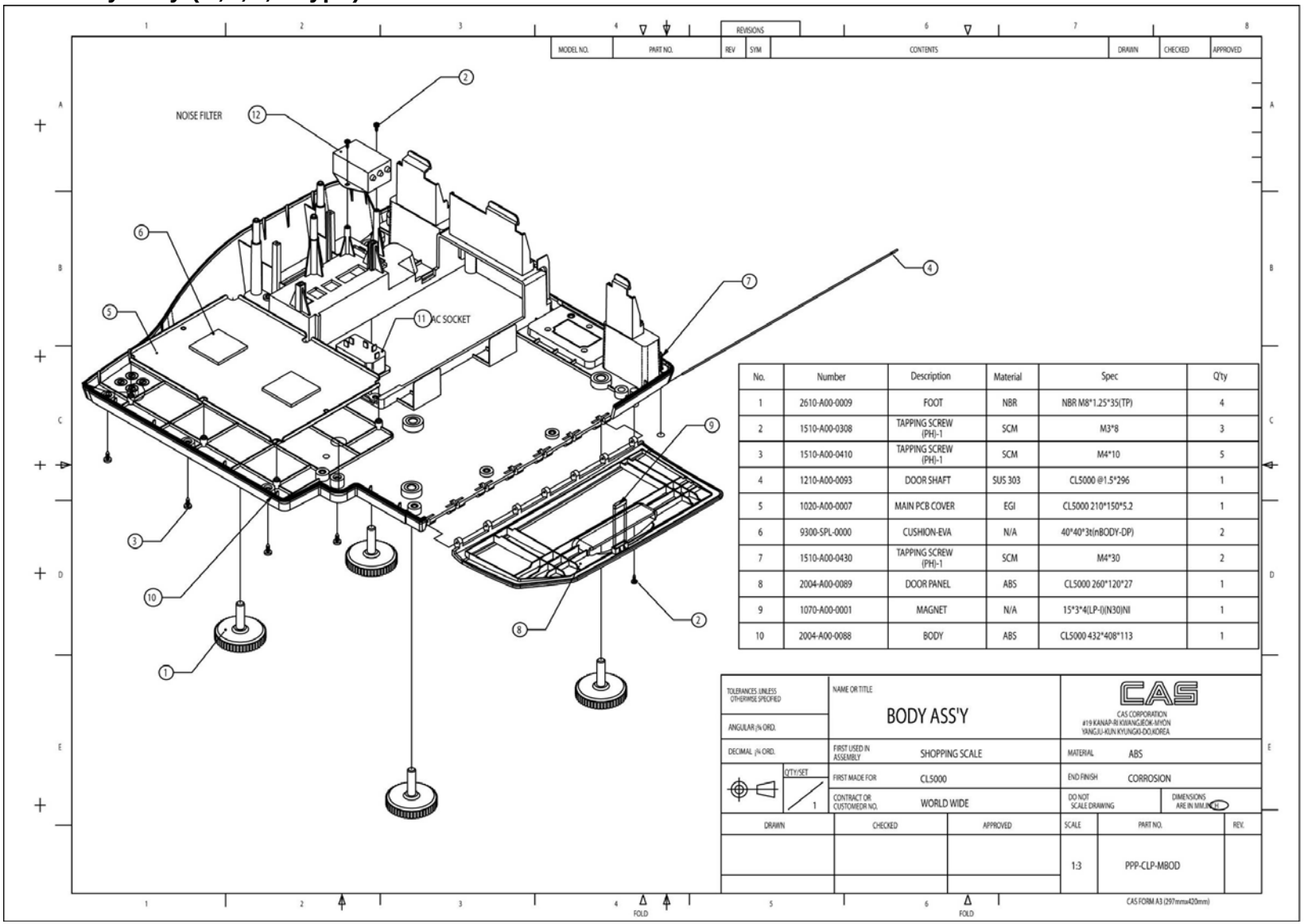


9.2 Scale Assy (H-type)



No.	Description	Spec	Q'ty	Remark
1	FRONT COVER ASS'Y	CL5000-H 419*291.6*869	1	
2	MAIN FRAME ASS'Y	CL5000-H 400.6*256.4*120	1	
3	REAR COVER ASS'Y	CL5000-H 419*291.6*869	1	
4	IO COVER ASS'Y	CL5000-H 369.5*116*88	1	
5	CARTRIDGE ASS'Y	CL5000-H 254*107*94	1	CL5000
6	BASE BRACKET ASS'Y	CL5000-H 261.6*95*92.4*2.6t	1	CL5000
9	TRAY Ass'y (FISH TRAY)	CL5000-H 426*248*20	1	FISH TYPE

9.3 Body Assy (B,P,R,G-type)



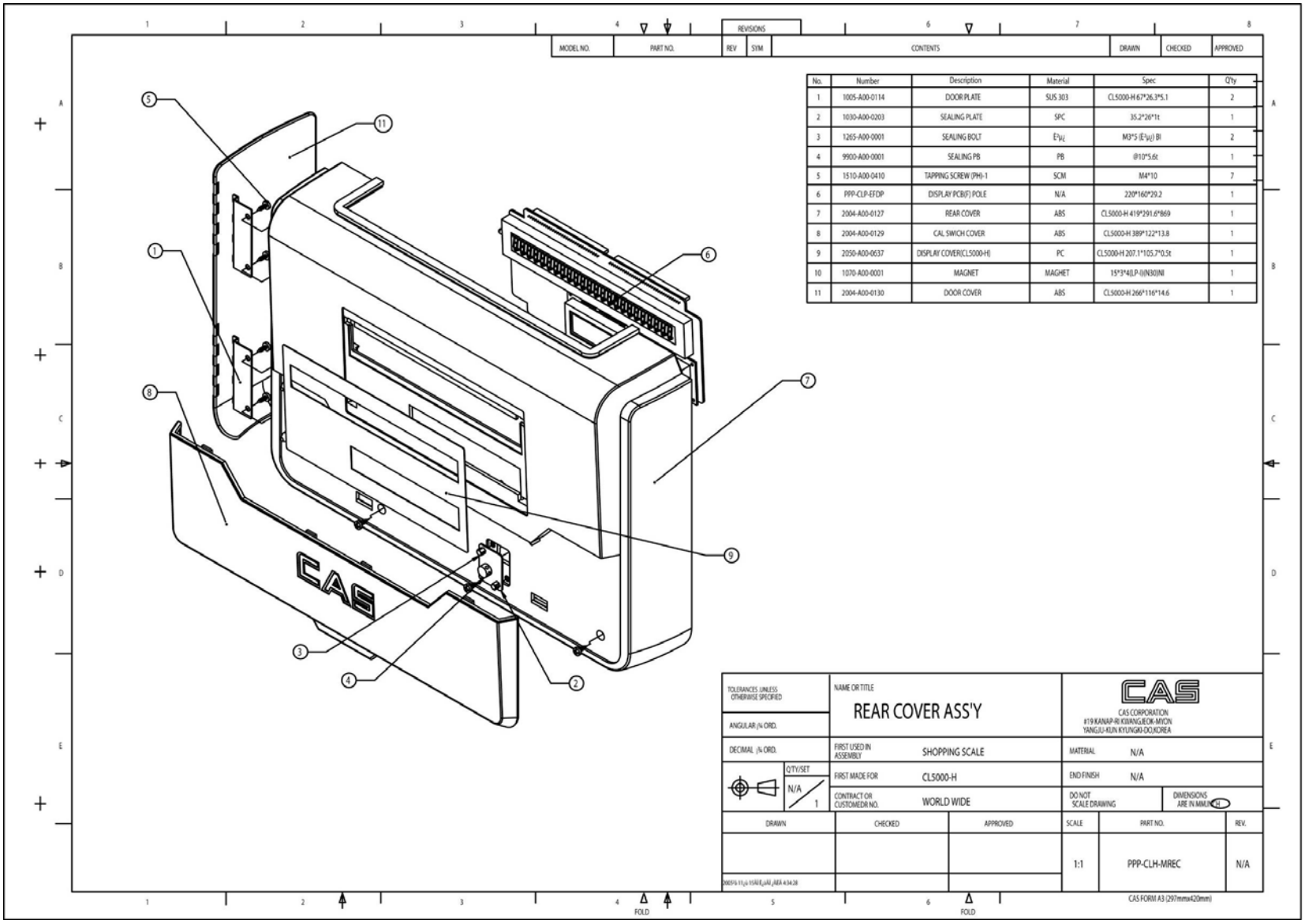
No.	Number	Description	Material	Spec	Q'ty
1	2610-A00-0009	FOOT	NBR	NBR M8*1.25*35(TP)	4
2	1510-A00-0308	TAPPING SCREW (PH)-1	SCM	M3*8	3
3	1510-A00-0410	TAPPING SCREW (PH)-1	SCM	M4*10	5
4	1210-A00-0093	DOOR SHAFT	SUS 303	CL5000 @1.5*296	1
5	1020-A00-0007	MAIN PCB COVER	EGI	CL5000 210*150*5.2	1
6	9300-SPL-0000	CUSHION-EVA	N/A	40*40*3t(nBODY-DP)	2
7	1510-A00-0430	TAPPING SCREW (PH)-1	SCM	M4*30	2
8	2004-A00-0089	DOOR PANEL	ABS	CL5000 260*120*27	1
9	1070-A00-0001	MAGNET	N/A	15*3*4(LP-I)(N30)NI	1
10	2004-A00-0088	BODY	ABS	CL5000 432*408*113	1

TOLERANCES UNLESS OTHERWISE SPECIFIED	NAME OR TITLE: BODY ASS'Y	CAS CORPORATION #19 KANAP-IN KIBANGLEOK-MYON YANGJU-KUN KYUNGGI-DO,KOREA	
ANGULAR ±% ORD.			
DECIMAL .±% ORD.	FIRST USED IN ASSEMBLY: SHOPPING SCALE	MATERIAL: ABS	
QTY/SET: 1	FIRST MADE FOR: CL5000	END FINISH: CORROSION	
	CONTRACT OR CUSTOMEDR NO.: WORLD WIDE	DO NOT SCALE DRAWING	DIMENSIONS ARE IN MM.IN

DRAWN	CHECKED	APPROVED	SCALE	PART NO.	REV.
			1:3	PPP-CLP-MBOD	

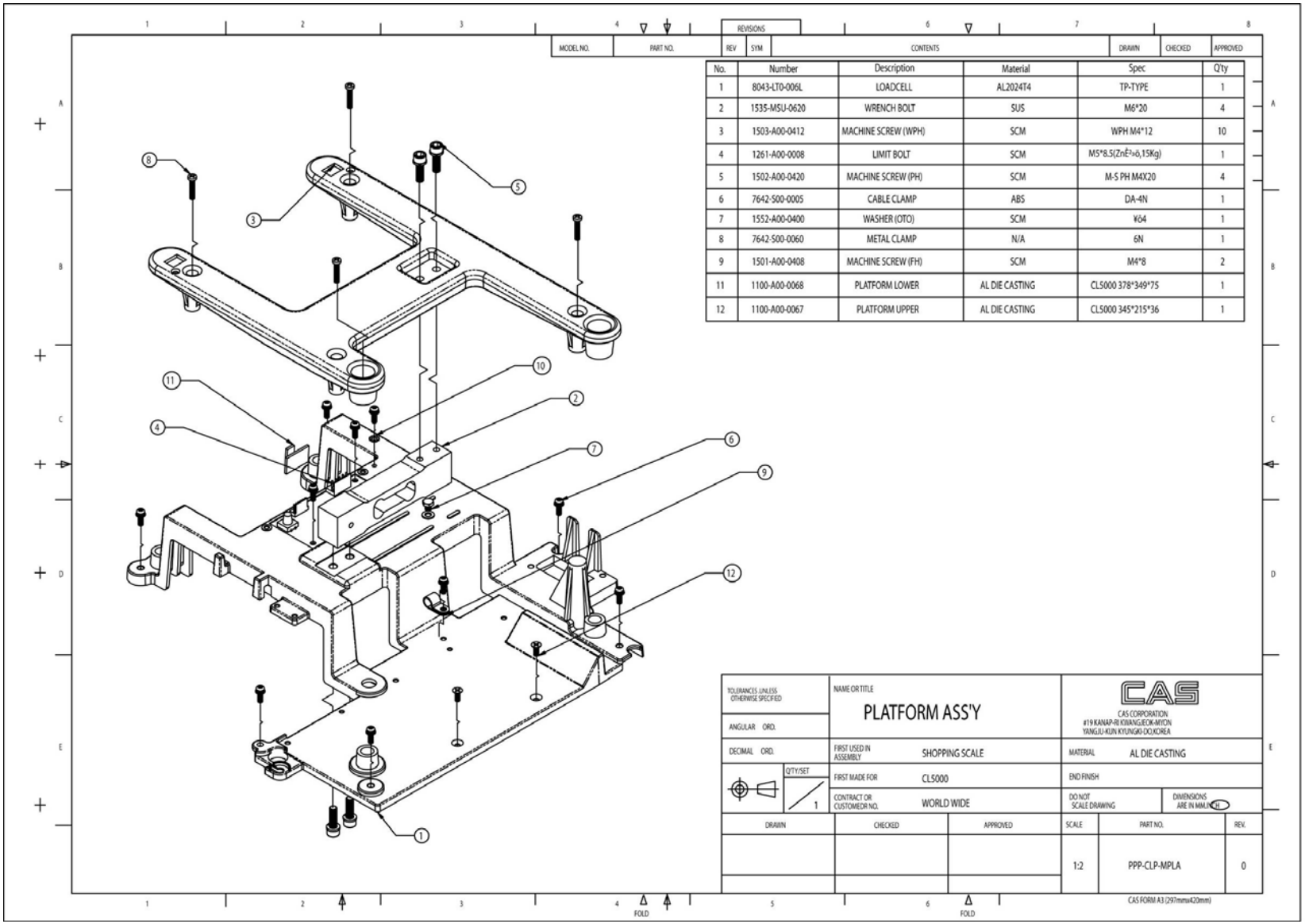
CAS FORM A3 (297mmx420mm)

9.4 Body Assy (H-type)



No.	Number	Description	Material	Spec	Q'ty
1	1005-A00-0114	DOOR PLATE	SUS 303	CL5000-H 67*26.3*5.1	2
2	1030-A00-0203	SEALING PLATE	SPC	35.2*26*1t	1
3	1265-A00-0001	SEALING BOLT	탄소강	M3*5 (탄소강) BI	2
4	9900-A00-0001	SEALING PB	PB	Ø10*5.6t	1
5	1510-A00-0410	TAPPING SCREW (PH)-1	SCM	M4*10	7
6	PPP-CLP-EFDP	DISPLAY PCB(F) POLE	N/A	220*160*29.2	1
7	2004-A00-0127	REAR COVER	ABS	CL5000-H 419*291.6*869	1
8	2004-A00-0129	CAL SWICH COVER	ABS	CL5000-H 389*122*13.8	1
9	2050-A00-0637	DISPLAY COVER(CL5000-H)	PC	CL5000-H 207.1*105.7*0.5t	1
10	1070-A00-0001	MAGNET	MAGNET	15*3*4(LP-I)(N30)NI	1
11	2004-A00-0130	DOOR COVER	ABS	CL5000-H 266*116*14.6	1

9.5 Platform (B,P,R,G-type)



No.	Number	Description	Material	Spec	Q'ty
1	8043-LT0-006L	LOADCELL	AL2024T4	TP-TYPE	1
2	1535-MSU-0620	WRENCH BOLT	SUS	M6*20	4
3	1503-A00-0412	MACHINE SCREW (WPH)	SCM	WPH M4*12	10
4	1261-A00-0008	LIMIT BOLT	SCM	M5*8.5(ZnÉ³»0,15Kg)	1
5	1502-A00-0420	MACHINE SCREW (PH)	SCM	M-S PH M4X20	4
6	7642-S00-0005	CABLE CLAMP	ABS	DA-4N	1
7	1552-A00-0400	WASHER (OTO)	SCM	¥ó4	1
8	7642-S00-0060	METAL CLAMP	N/A	6N	1
9	1501-A00-0408	MACHINE SCREW (FH)	SCM	M4*8	2
11	1100-A00-0068	PLATFORM LOWER	AL DIE CASTING	CL5000 378*349*75	1
12	1100-A00-0067	PLATFORM UPPER	AL DIE CASTING	CL5000 345*215*36	1

REVISIONS

MODEL NO. | PART NO. | REV | SYM | CONTENTS | DRAWN | CHECKED | APPROVED

TOLERANCES UNLESS OTHERWISE SPECIFIED
ANGULAR ORD.
DECIMAL ORD.

NAME OR TITLE: PLATFORM ASS'Y

FIRST USED IN ASSEMBLY: SHOPPING SCALE
FIRST MADE FOR: CL5000
CONTRACT OR CUSTOMER NO.: WORLD WIDE
QTY/SET: 1

CAS
CAS CORPORATION
#19 KANAP-RI KWANG,EOK-MYON
YANG,JU-KUN KYUNGGI-DO,KOREA

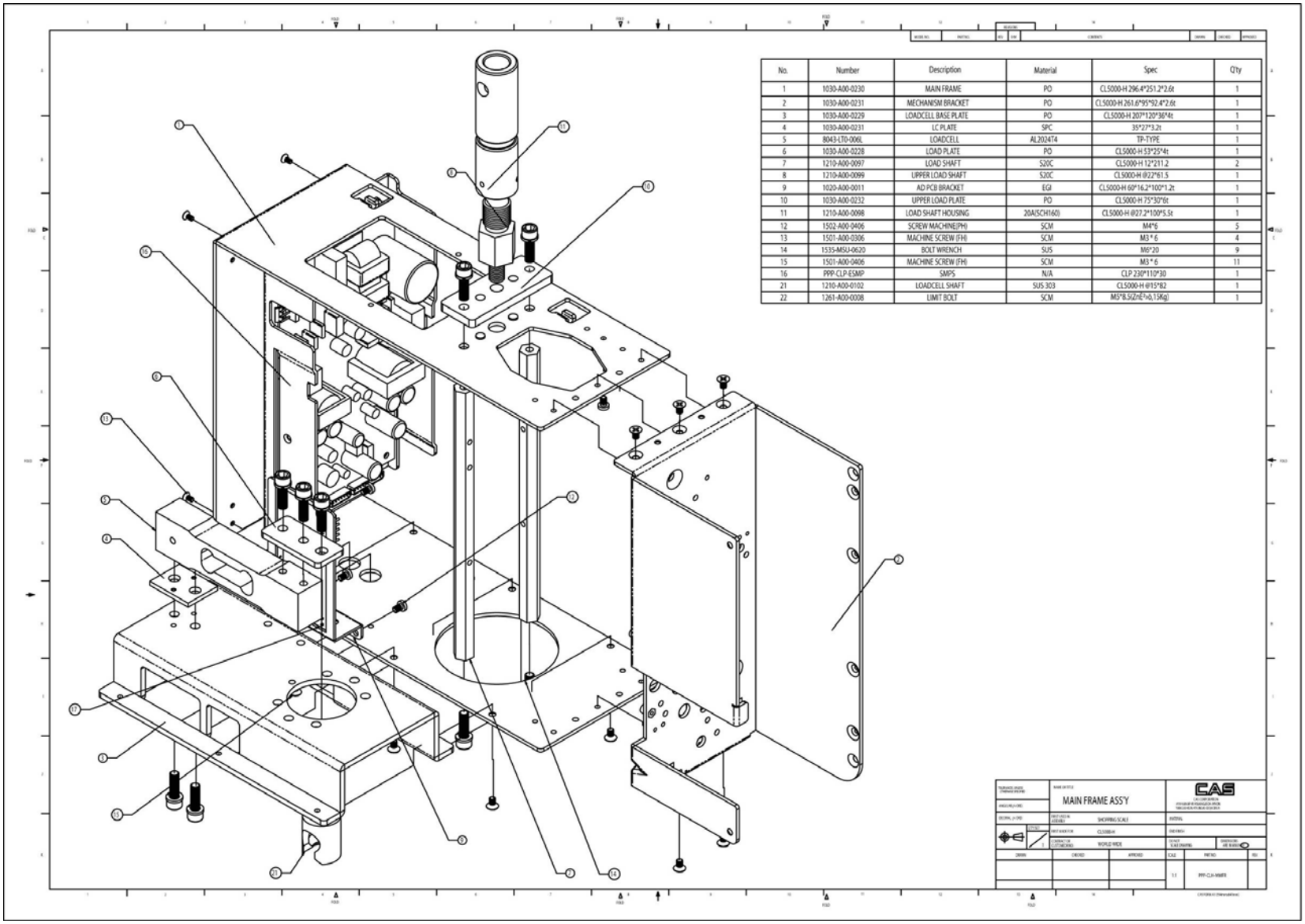
MATERIAL: AL DIE CASTING
END FINISH
DO NOT SCALE DRAWING
DIMENSIONS ARE IN MM.(IN)

DRAWN	CHECKED	APPROVED	SCALE	PART NO.	REV.
			1:2	PPP-CLP-MPLA	0

FOLD FOLD

CAS FORM A3 (297mmx420mm)

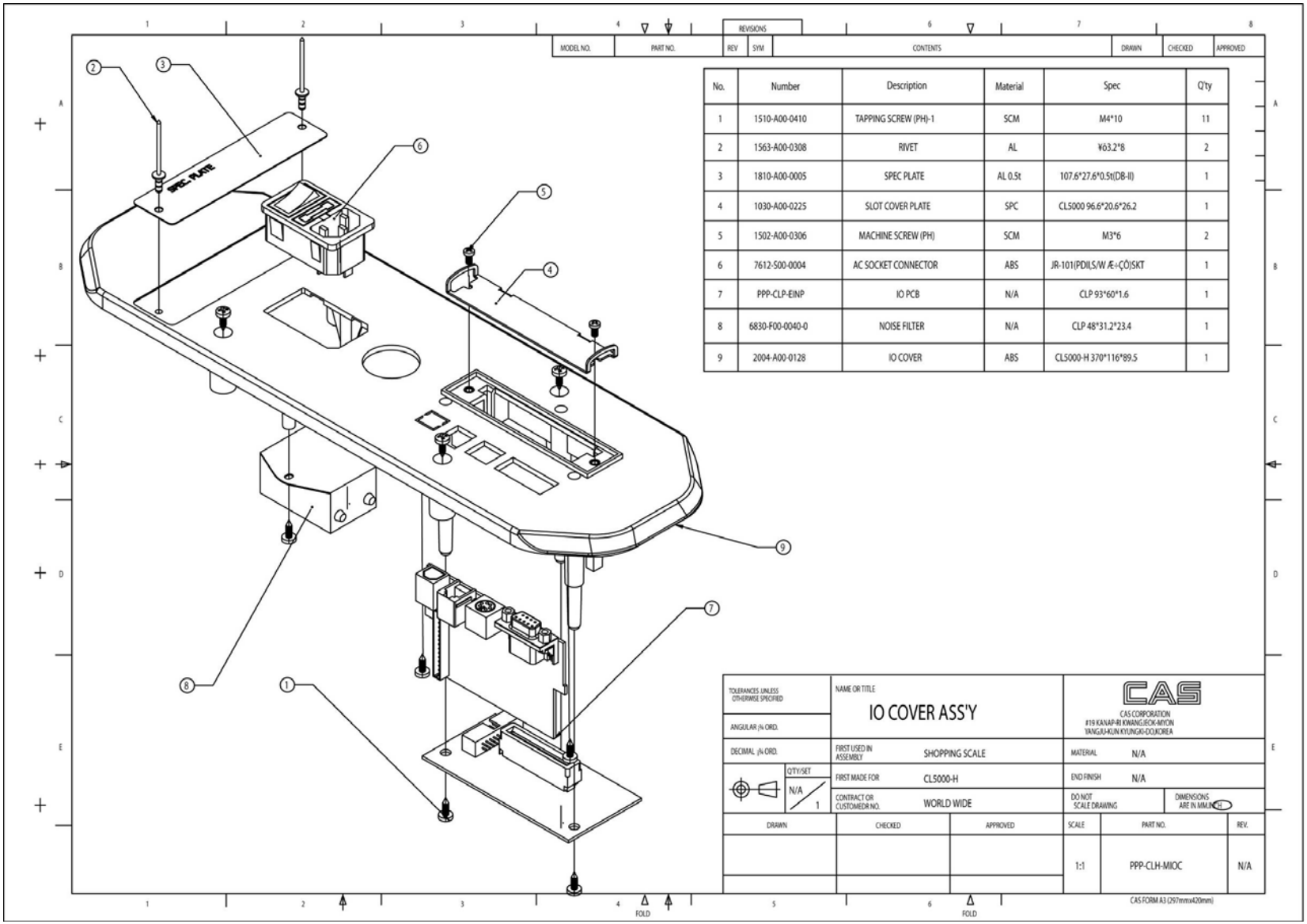
9.6 Main Frame (H-type)



No.	Number	Description	Material	Spec	Q'ty
1	1030-A00-0230	MAIN FRAME	PO	CL5000-H 296.4*251.2*2.6t	1
2	1030-A00-0231	MECHANISM BRACKET	PO	CL5000-H 261.6*95*92.4*2.6t	1
3	1030-A00-0229	LOADCELL BASE PLATE	PO	CL5000-H 207*120*36*4t	1
4	1030-A00-0231	LC PLATE	SPC	35*27*3.2t	1
5	8043-LT0-006L	LOADCELL	AL2024T4	TP-TYPE	1
6	1030-A00-0228	LOAD PLATE	PO	CL5000-H 53*25*4t	1
7	1210-A00-0097	LOAD SHAFT	S20C	CL5000-H 12*211.2	2
8	1210-A00-0099	UPPER LOAD SHAFT	S20C	CL5000-H Ø22*61.5	1
9	1020-A00-0011	AD PCB BRACKET	EGI	CL5000-H 60*16.2*100*1.2t	1
10	1030-A00-0232	UPPER LOAD PLATE	PO	CL5000-H 75*30*6t	1
11	1210-A00-0098	LOAD SHAFT HOUSING	20A(SCH160)	CL5000-H Ø27.2*100*5.5t	1
12	1502-A00-0406	SCREW MACHINE(PH)	SCM	M4*6	5
13	1501-A00-0306	MACHINE SCREW (FH)	SCM	M3 * 6	4
14	1535-MSU-0620	BOLT WRENCH	SUS	M6*20	9
15	1501-A00-0406	MACHINE SCREW (FH)	SCM	M3 * 6	11
16	PPP-CLP-ESMP	SMPS	N/A	CLP 230*110*30	1
21	1210-A00-0102	LOADCELL SHAFT	SUS 303	CL5000-H Ø15*82	1
22	1261-A00-0008	LIMIT BOLT	SCM	M5*8.5(Zn℡0.15Kg)	1

MAIN FRAME ASS'Y

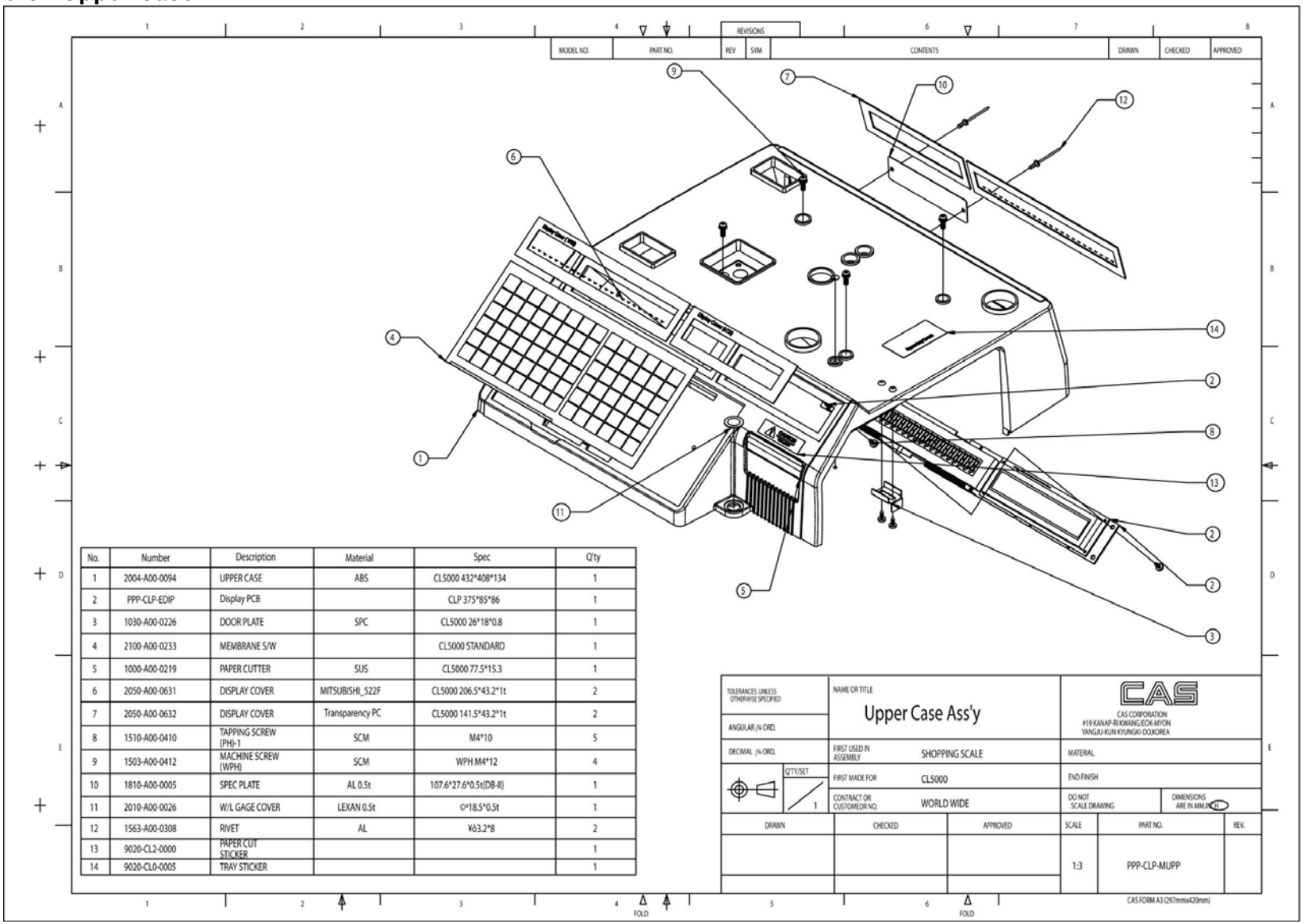
9.7 I.O cover (H-Type)



No.	Number	Description	Material	Spec	Q'ty
1	1510-A00-0410	TAPPING SCREW (PH)-1	SCM	M4*10	11
2	1563-A00-0308	RIVET	AL	¥ø3.2*8	2
3	1810-A00-0005	SPEC PLATE	AL 0.5t	107.6*27.6*0.5t(DB-II)	1
4	1030-A00-0225	SLOT COVER PLATE	SPC	CL5000 96.6*20.6*26.2	1
5	1502-A00-0306	MACHINE SCREW (PH)	SCM	M3*6	2
6	7612-500-0004	AC SOCKET CONNECTOR	ABS	JR-101(PDII,S/W Æ÷ÇÖ)SKT	1
7	PPP-CLP-EINP	IO PCB	N/A	CLP 93*60*1.6	1
8	6830-F00-0040-0	NOISE FILTER	N/A	CLP 48*31.2*23.4	1
9	2004-A00-0128	IO COVER	ABS	CL5000-H 370*116*89.5	1

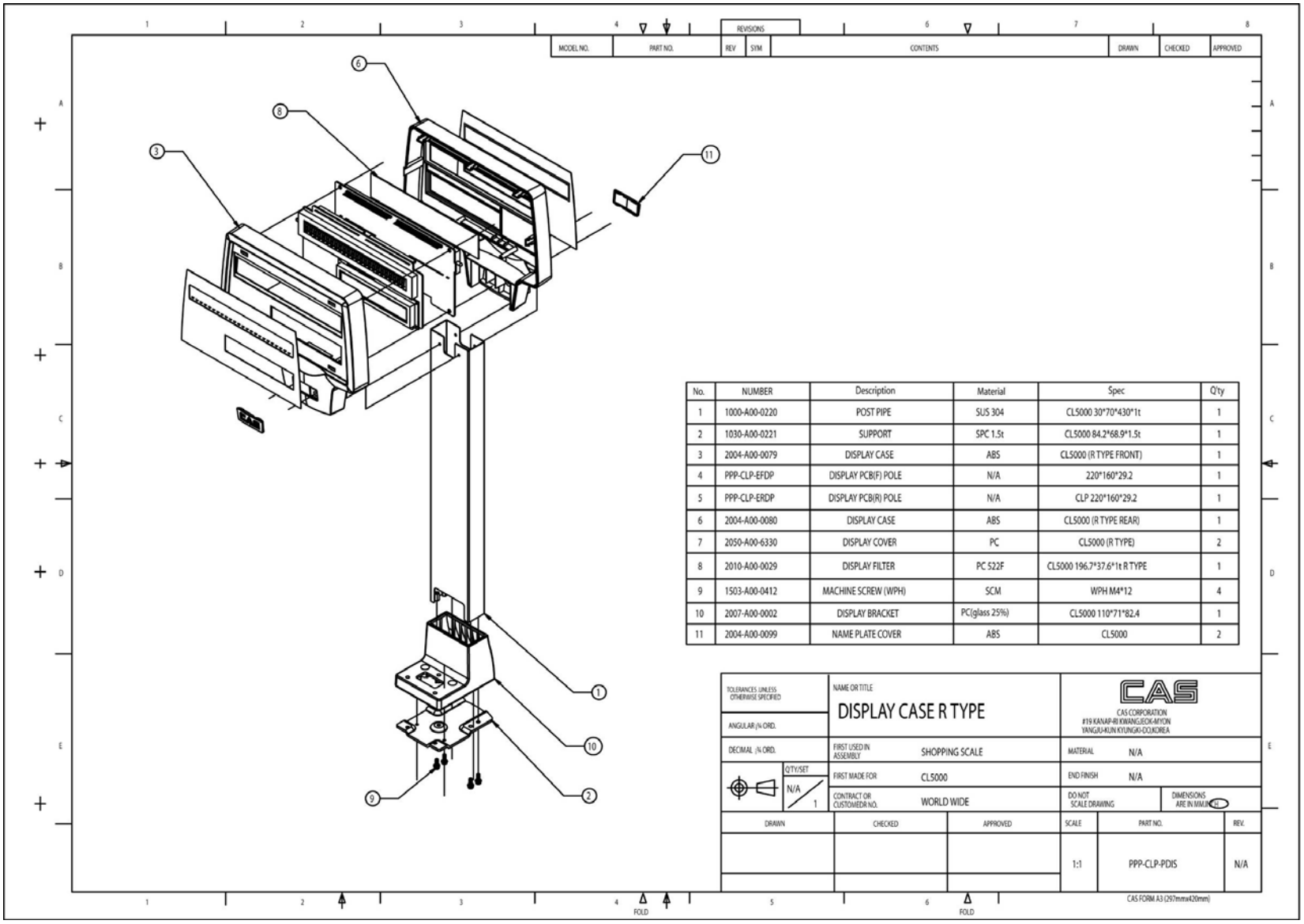
TOLERANCES UNLESS OTHERWISE SPECIFIED
ANGULAR /½ ORD.
DECIMAL .¸½ ORD.
QTY/SET N/A 1
NAME OR TITLE: IO COVER ASS'Y
FIRST USED IN ASSEMBLY: SHOPPING SCALE
FIRST MADE FOR: CL5000-H
CONTRACT OR CUSTOMEDR NO.: WORLD WIDE
CAS CORPORATION #19 KANAP-RI KWANGJEOK-MYON YANGJU-KUN KYUNGKI-DO,KOREA
MATERIAL: N/A
END FINISH: N/A
DO NOT SCALE DRAWING
DIMENSIONS ARE IN MM(INCH)
DRAWN | CHECKED | APPROVED
SCALE: 1:1
PART NO.: PPP-CLH-MIOC
REV.: N/A
CAS FORM A3 (297mmx420mm)
FOLD

9.8 Upper Case



No.	Number	Description	Material	Spec	Q'ty
1	2004-A00-0094	UPPER CASE	ABS	CL5000 432*408*134	1
2	PPP-CLP-EDIP	Display PCB		CLP 375*85*86	1
3	1030-A00-0226	DOOR PLATE	SPC	CL5000 26*18*0.8	1
4	2100-A00-0233	MEMBRANE S/W		CL5000 STANDARD	1
5	1000-A00-0219	PAPER CUTTER	SUS	CL5000 77.5*15.3	1
6	2050-A00-0631	DISPLAY COVER	MITSUBISHI_522F	CL5000 206.5*43.2*1t	2
7	2050-A00-0632	DISPLAY COVER	Transparency PC	CL5000 141.5*43.2*1t	2
8	1510-A00-0410	TAPPING SCREW (PHI)-1	SCM	M4*10	5
9	1503-A00-0412	MACHINE SCREW (WPH)	SCM	WPH M4*12	4
10	1810-A00-0005	SPEC PLATE	AL 0.5t	107.6*27.6*0.5t(DB-II)	1
11	2010-A00-0026	W/L GAGE COVER	LEXAN 0.5t	©*18.5*0.5t	1
12	1563-A00-0308	RIVET	AL	¥ø3.2*8	2
13	9020-CL2-0000	PAPER CUT STICKER			1
14	9020-CL0-0005	TRAY STICKER			1

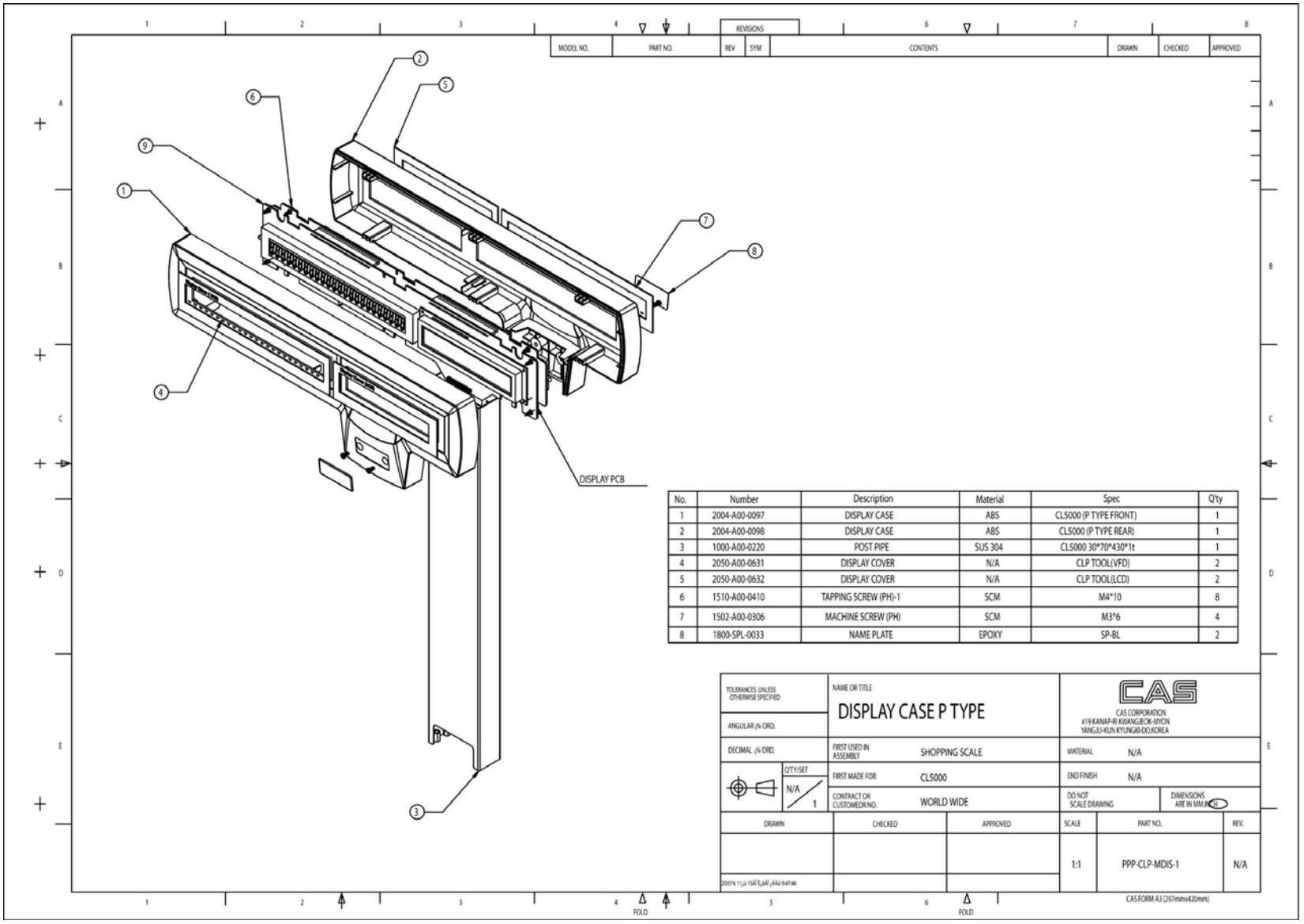
9.9 Pole display (R-type)



No.	NUMBER	Description	Material	Spec	Q'ty
1	1000-A00-0220	POST PIPE	SUS 304	CL5000 30*70*430*1t	1
2	1030-A00-0221	SUPPORT	SPC 1.5t	CL5000 84.2*68.9*1.5t	1
3	2004-A00-0079	DISPLAY CASE	ABS	CL5000 (R TYPE FRONT)	1
4	PPP-CLP-EFDP	DISPLAY PCB(F) POLE	N/A	220*160*29.2	1
5	PPP-CLP-ERDP	DISPLAY PCB(R) POLE	N/A	CLP 220*160*29.2	1
6	2004-A00-0080	DISPLAY CASE	ABS	CL5000 (R TYPE REAR)	1
7	2050-A00-6330	DISPLAY COVER	PC	CL5000 (R TYPE)	2
8	2010-A00-0029	DISPLAY FILTER	PC 522F	CL5000 196.7*37.6*1t R TYPE	1
9	1503-A00-0412	MACHINE SCREW (WPH)	SCM	WPH M4*12	4
10	2007-A00-0002	DISPLAY BRACKET	PC(glass 25%)	CL5000 110*71*82.4	1
11	2004-A00-0099	NAME PLATE COVER	ABS	CL5000	2

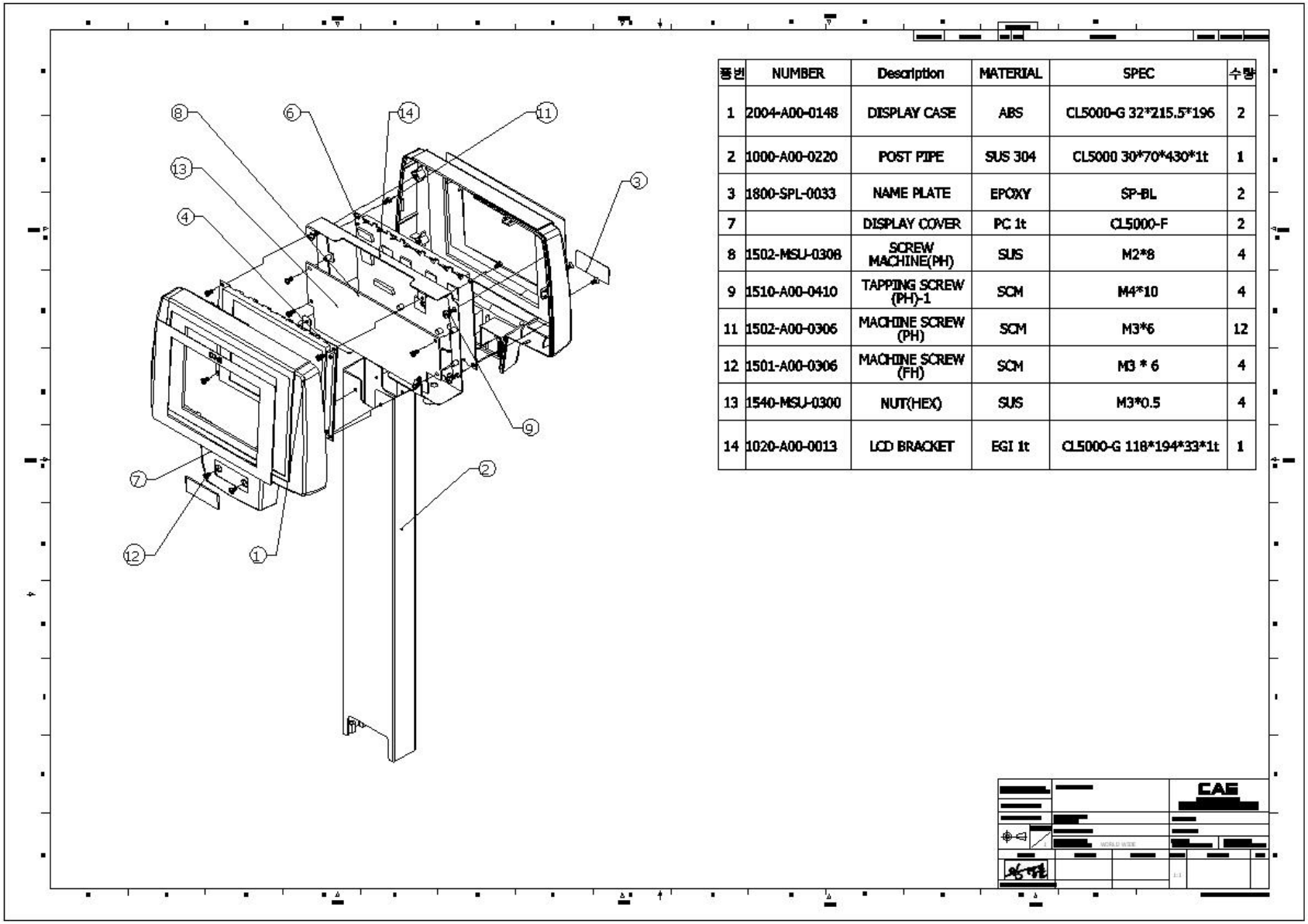
TOLERANCES UNLESS OTHERWISE SPECIFIED
ANGULAR /N ORD.
DECIMAL /N ORD.
NAME OR TITLE: DISPLAY CASE R TYPE
FIRST USED IN ASSEMBLY: SHOPPING SCALE
FIRST MADE FOR: CL5000
CONTRACT OR CUSTOMEDR NO.: WORLD WIDE
Q'TY/SET: N/A / 1
CAS CORPORATION #19 KANAP-RI KWANGJEOK-MYON YANGJU-KUN KYUNGKI-DO,KOREA
MATERIAL: N/A
END FINISH: N/A
DO NOT SCALE DRAWING
DIMENSIONS ARE IN MM
DRAWN | CHECKED | APPROVED | SCALE: 1:1 | PART NO.: PPP-CLP-PDIS | REV.: N/A
CAS FORM A3 (297mmx420mm)

9.10 Pole display (P-type)



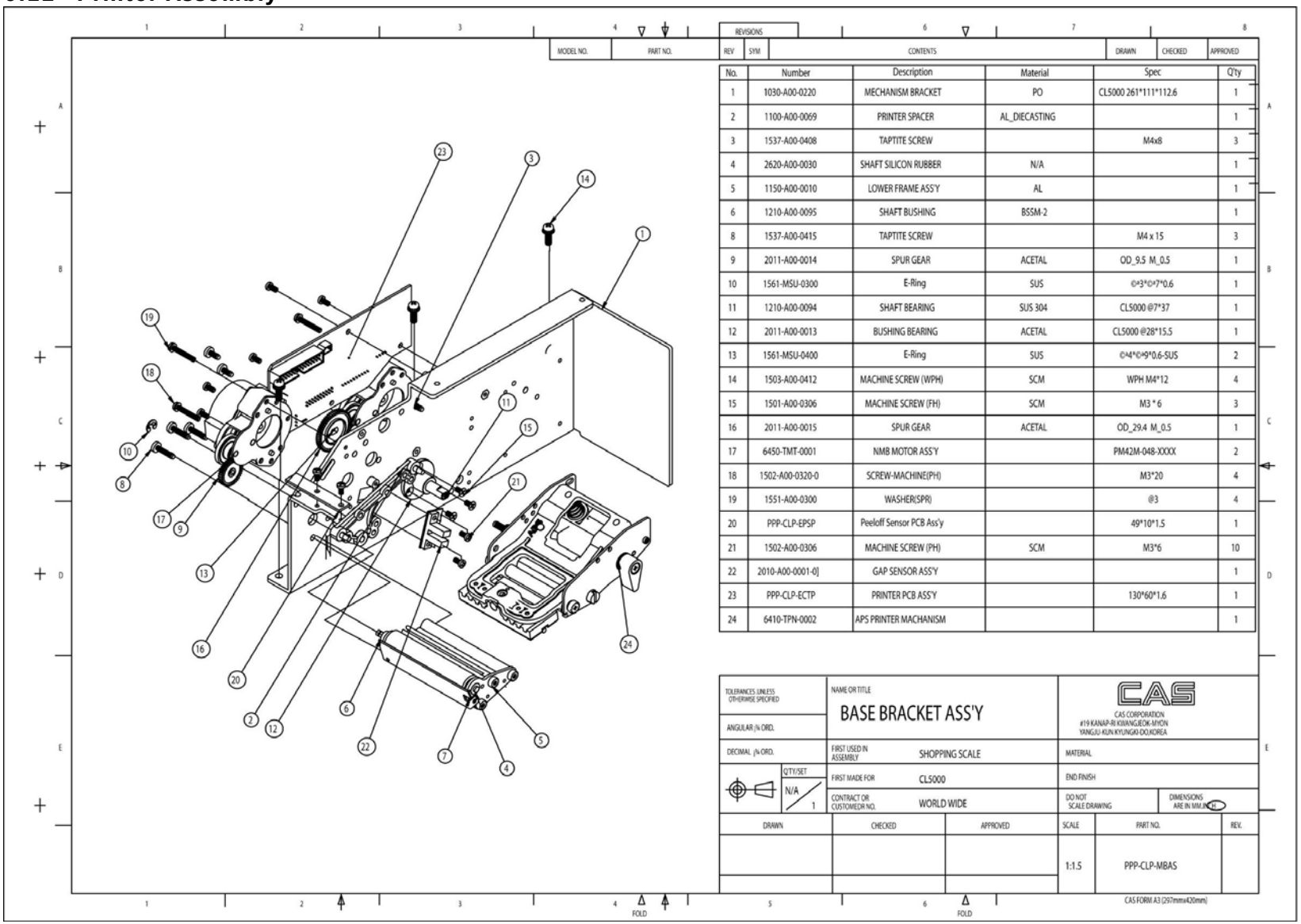
No.	Number	Description	Material	Spec	Q'ty
1	2004-A00-0097	DISPLAY CASE	ABS	CL5000 (P TYPE FRONT)	1
2	2004-A00-0098	DISPLAY CASE	ABS	CL5000 (P TYPE REAR)	1
3	1000-A00-0220	POST PIPE	SUS 304	CL5000 30*70*430*1t	1
4	2050-A00-0631	DISPLAY COVER	N/A	CLP TOOL(VFD)	2
5	2050-A00-0632	DISPLAY COVER	N/A	CLP TOOL(LCD)	2
6	1510-A00-0410	TAPPING SCREW (PH)-1	SCM	M4*10	8
7	1502-A00-0306	MACHINE SCREW (PH)	SCM	M3*6	4
8	1800-SPL-0033	NAME PLATE	EPOXY	SP-BL	2

9.11 Pole display (G-type)



품번	NUMBER	Description	MATERIAL	SPEC	수량
1	2004-A00-0148	DISPLAY CASE	ABS	CL5000-G 32*215.5*196	2
2	1000-A00-0220	POST PIPE	SUS 304	CL5000 30*70*430*1t	1
3	1800-SPL-0033	NAME PLATE	EPOXY	SP-BL	2
7		DISPLAY COVER	PC 1t	CL5000-F	2
8	1502-MSU-0308	SCREW MACHINE(PH)	SUS	M2*8	4
9	1510-A00-0410	TAPPING SCREW (PH)-1	SCM	M4*10	4
11	1502-A00-0306	MACHINE SCREW (PH)	SCM	M3*6	12
12	1501-A00-0306	MACHINE SCREW (FH)	SCM	M3 * 6	4
13	1540-MSU-0300	NUT(HEX)	SUS	M3*0.5	4
14	1020-A00-0013	LCD BRACKET	EGI 1t	CL5000-G 118*194*33*1t	1

9.12 Printer Assembly



No.	Number	Description	Material	Spec	Q'ty
1	1030-A00-0220	MECHANISM BRACKET	PO	CL5000 261*111*112.6	1
2	1100-A00-0069	PRINTER SPACER	AL_DIECASTING		1
3	1537-A00-0408	TAPTITE SCREW		M4x8	3
4	2620-A00-0030	SHAFT SILICON RUBBER	N/A		1
5	1150-A00-0010	LOWER FRAME ASS'Y	AL		1
6	1210-A00-0095	SHAFT BUSHING	BSSM-2		1
8	1537-A00-0415	TAPTITE SCREW		M4 x 15	3
9	2011-A00-0014	SPUR GEAR	ACETAL	OD_9.5 M_0.5	1
10	1561-MSU-0300	E-Ring	SUS	©*3*©*7*0.6	1
11	1210-A00-0094	SHAFT BEARING	SUS 304	CL5000 @7*37	1
12	2011-A00-0013	BUSHING BEARING	ACETAL	CL5000 @28*15.5	1
13	1561-MSU-0400	E-Ring	SUS	©*4*©*9*0.6-SUS	2
14	1503-A00-0412	MACHINE SCREW (WPH)	SCM	WPH M4*12	4
15	1501-A00-0306	MACHINE SCREW (FH)	SCM	M3 * 6	3
16	2011-A00-0015	SPUR GEAR	ACETAL	OD_29.4 M_0.5	1
17	6450-TMT-0001	NMB MOTOR ASS'Y		PM42M-048-XXXX	2
18	1502-A00-0320-0	SCREW-MACHINE(PH)		M3*20	4
19	1551-A00-0300	WASHER(SPR)		@3	4
20	PPP-CLP-EPSP	Peeloff Sensor PCB Ass'y		49*10*1.5	1
21	1502-A00-0306	MACHINE SCREW (PH)	SCM	M3*6	10
22	2010-A00-0001-0]	GAP SENSOR ASS'Y			1
23	PPP-CLP-ECTP	PRINTER PCB ASS'Y		130*60*1.6	1
24	6410-TPN-0002	APS PRINTER MACHANISM			1

REVISIONS: MODEL NO. | PART NO. | REV | SYM | CONTENTS | DRAWN | CHECKED | APPROVED

TOLERANCES UNLESS OTHERWISE SPECIFIED: ANGULAR ±½ ORD. | DECIMAL .¼ ORD.

NAME OR TITLE: BASE BRACKET ASS'Y

FIRST USED IN ASSEMBLY: SHOPPING SCALE

QTY/SET: N/A / 1

FIRST MADE FOR: CL5000

CONTRACT OR CUSTOMEDR NO.: WORLD WIDE

CAS CORPORATION
#19 KANAP-RI KWANGJEOK-MYON
YANGJU-KUN KYUNGGI-DO,KOREA

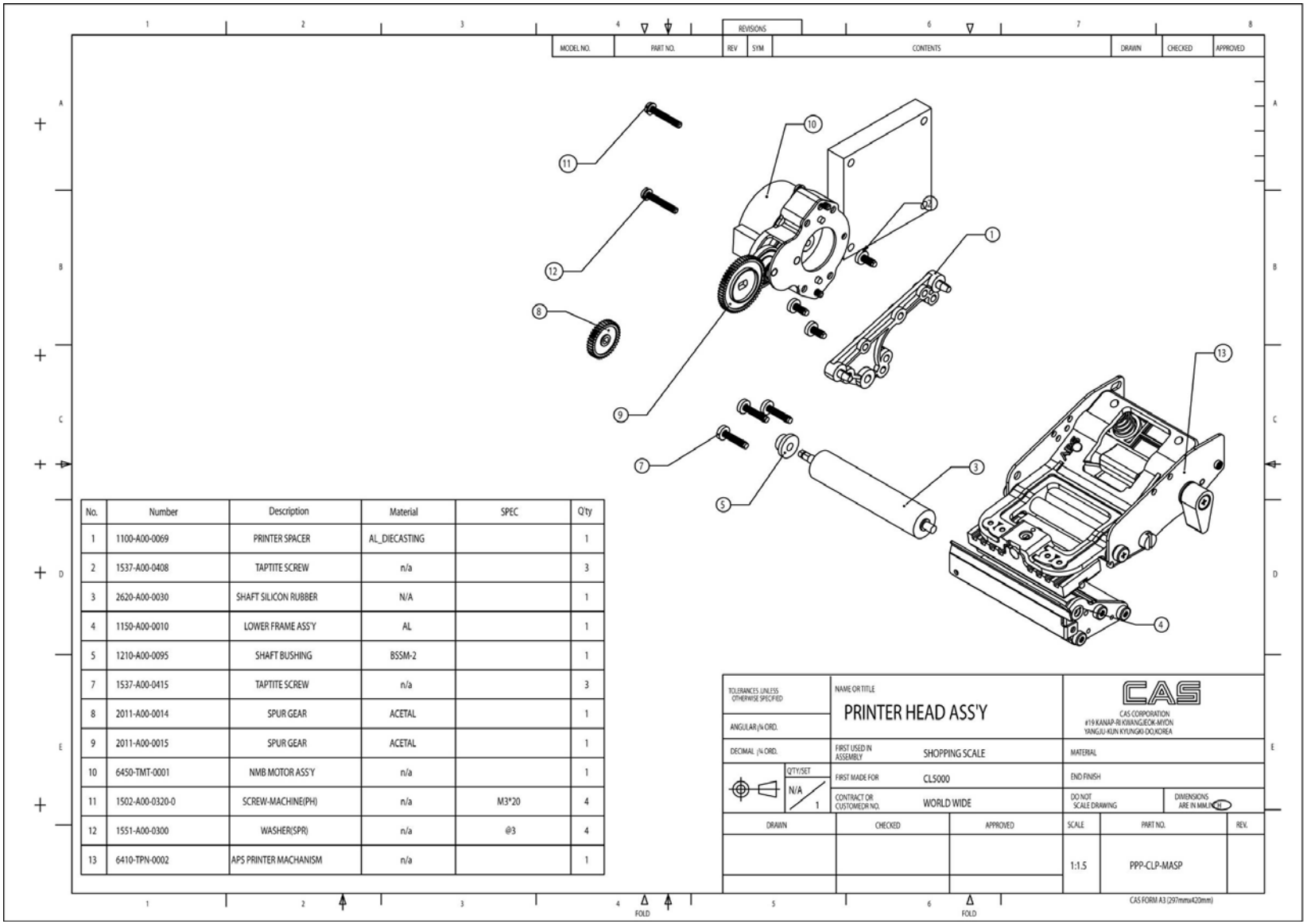
MATERIAL | END FINISH | DO NOT SCALE DRAWING | DIMENSIONS ARE IN MM.(M)

DRAWN	CHECKED	APPROVED	SCALE	PART NO.	REV.
			1:1.5	PPP-CLP-MBAS	

CAS FORM A3 (297mmx420mm)

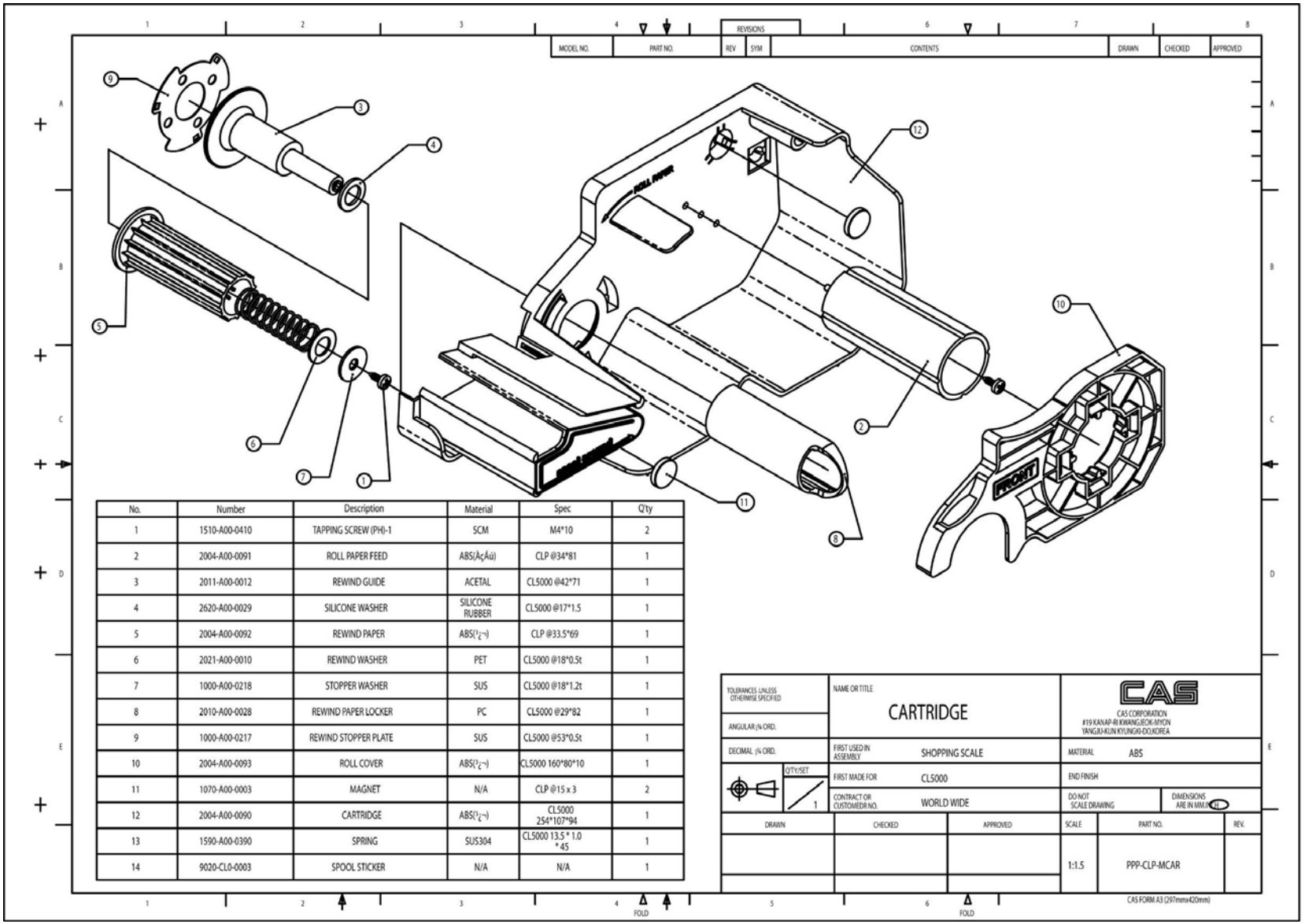
FOLD | FOLD

9.13 Printer Header Assemble



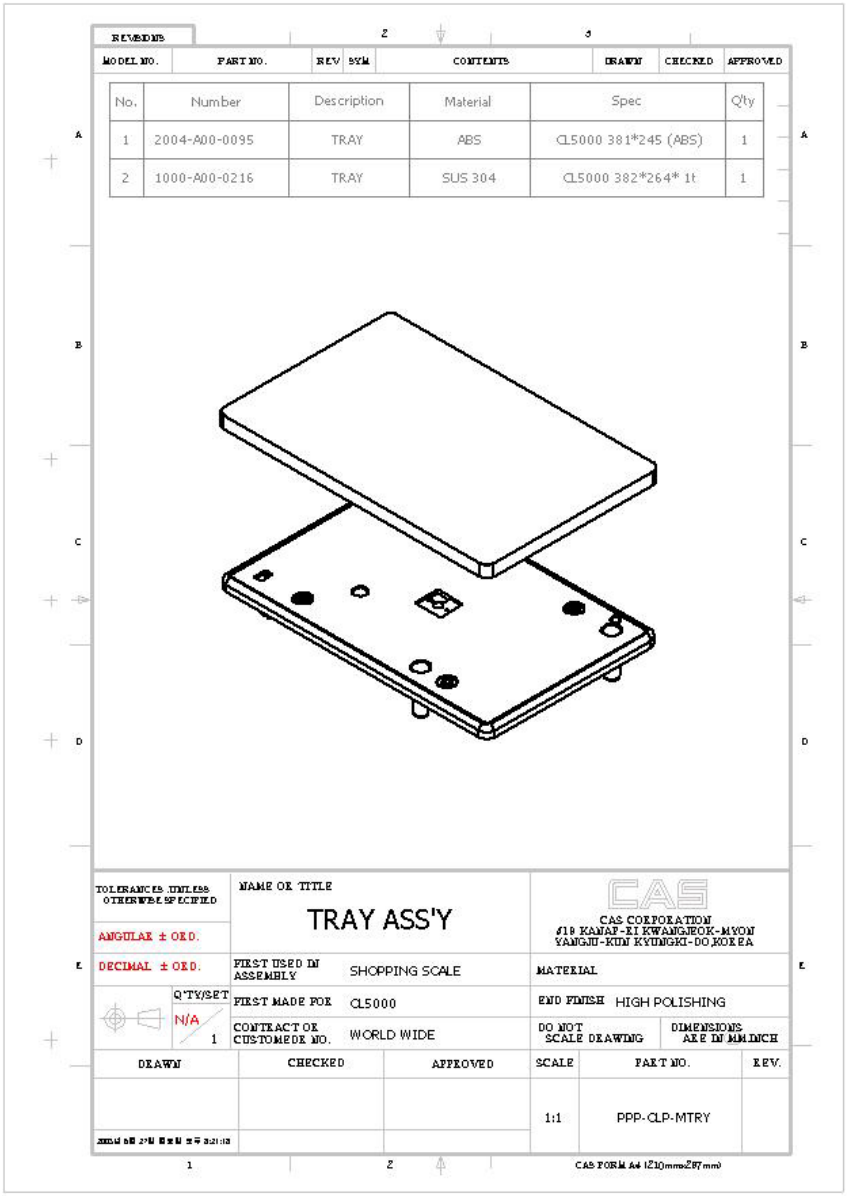
No.	Number	Description	Material	SPEC	Q'ty
1	1100-A00-0069	PRINTER SPACER	AL_DIECASTING		1
2	1537-A00-0408	TAPTITE SCREW	n/a		3
3	2620-A00-0030	SHAFT SILICON RUBBER	N/A		1
4	1150-A00-0010	LOWER FRAME ASS'Y	AL		1
5	1210-A00-0095	SHAFT BUSHING	BSSM-2		1
7	1537-A00-0415	TAPTITE SCREW	n/a		3
8	2011-A00-0014	SPUR GEAR	ACETAL		1
9	2011-A00-0015	SPUR GEAR	ACETAL		1
10	6450-TMT-0001	NMB MOTOR ASS'Y	n/a		1
11	1502-A00-0320-0	SCREW-MACHINE(PH)	n/a	M3*20	4
12	1551-A00-0300	WASHER(SPR)	n/a	@3	4
13	6410-TPN-0002	APS PRINTER MACHANISM	n/a		1

9.14 Cartridge



No.	Number	Description	Material	Spec	Q'ty
1	1510-A00-0410	TAPPING SCREW (PH)-1	SCM	M4*10	2
2	2004-A00-0091	ROLL PAPER FEED	ABS(ÀçÁú)	CLP @34*81	1
3	2011-A00-0012	REWIND GUIDE	ACETAL	CL5000 @42*71	1
4	2620-A00-0029	SILICONE WASHER	SILICONE RUBBER	CL5000 @17*1.5	1
5	2004-A00-0092	REWIND PAPER	ABS(?¿¬)	CLP @33.5*69	1
6	2021-A00-0010	REWIND WASHER	PET	CL5000 @18*0.5t	1
7	1000-A00-0218	STOPPER WASHER	SUS	CL5000 @18*1.2t	1
8	2010-A00-0028	REWIND PAPER LOCKER	PC	CL5000 @29*82	1
9	1000-A00-0217	REWIND STOPPER PLATE	SUS	CL5000 @53*0.5t	1
10	2004-A00-0093	ROLL COVER	ABS(?¿¬)	CL5000 160*80*10	1
11	1070-A00-0003	MAGNET	N/A	CLP @15 x 3	2
12	2004-A00-0090	CARTRIDGE	ABS(?¿¬)	CL5000 254*107*94	1
13	1590-A00-0390	SPRING	SUS304	CL5000 13.5 * 1.0 *45	1
14	9020-CL0-0003	SPOOL STICKER	N/A	N/A	1

9.15 Tray assembly (B,P,R,G-type)



REVISIONS

MODEL NO.	PART NO.	REV	SYM	CONTENTS	DRAWN	CHECKED	APPROVED

No.	Number	Description	Material	Spec	Q'ty
1	2004-A00-0095	TRAY	ABS	CL5000 381*245 (ABS)	1
2	1000-A00-0216	TRAY	SUS 304	CL5000 382*264* 1t	1

TOLERANCES UNLESS OTHERWISE SPECIFIED

ANGULAR ± 0'0"

DECIMAL ± 0.0

NAME OR TITLE

TRAY ASS'Y

CAS

CAS CORPORATION
#18 KANAP-RI KWANGJEOK-MYON
YANGJU-KUN KYUNGKI-DO,KOREA

FIRST USED IN ASSEMBLY: SHOPPING SCALE

FIRST MADE FOR: CL5000

CONTRACT OR CUSTOMERS NO.: WORLD WIDE

Q'TY/SET: N/A / 1

MATERIAL

END FINISH: HIGH POLISHING

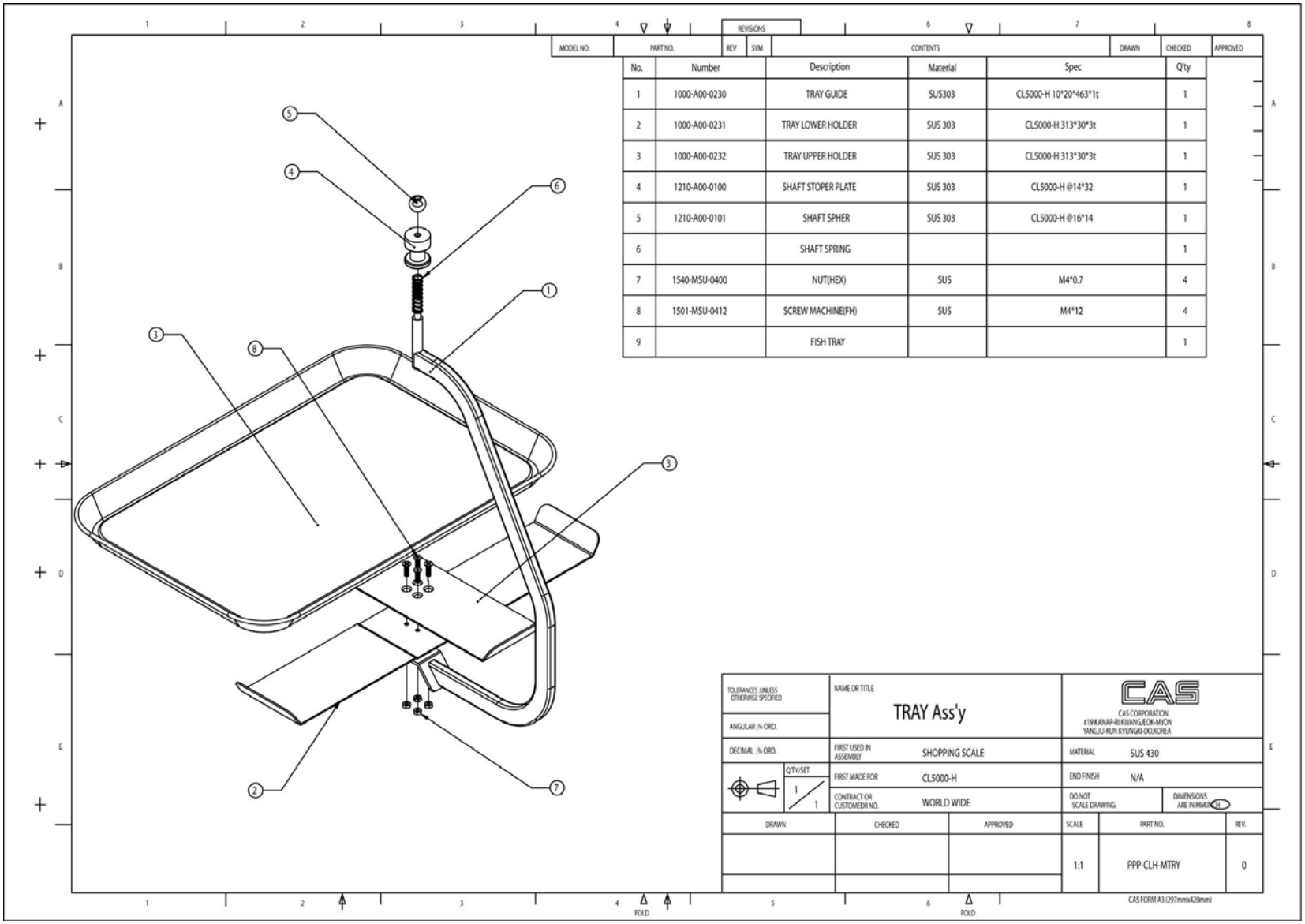
DO NOT SCALE DRAWING

DIMENSIONS ARE IN MM.INCH

DRAWN	CHECKED	APPROVED	SCALE	PART NO.	REV.
			1:1	PPP-CLP-MTRY	

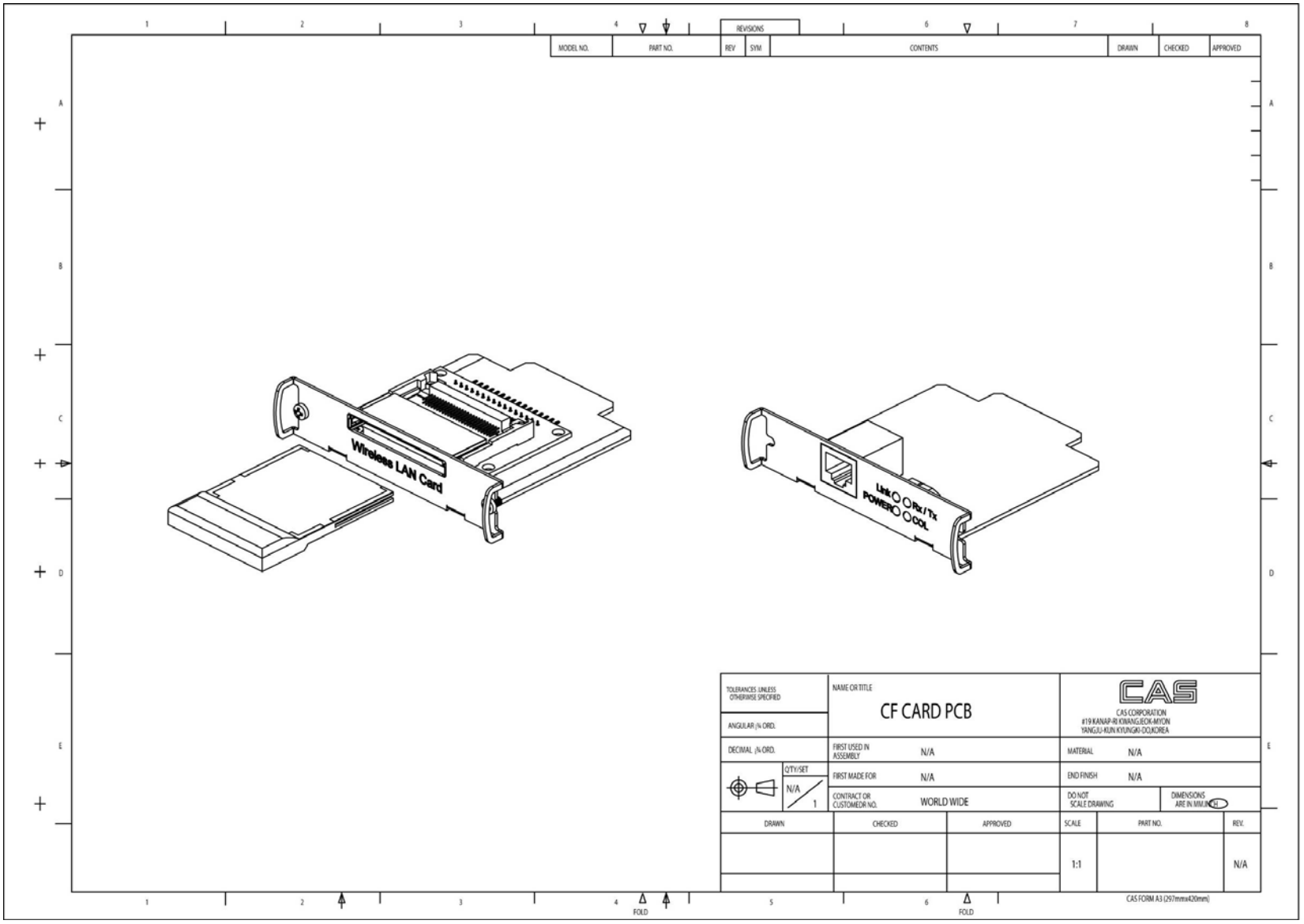
CAS FORM A4 (210mmx297mm)

9.16 Tray assembly (H-type)

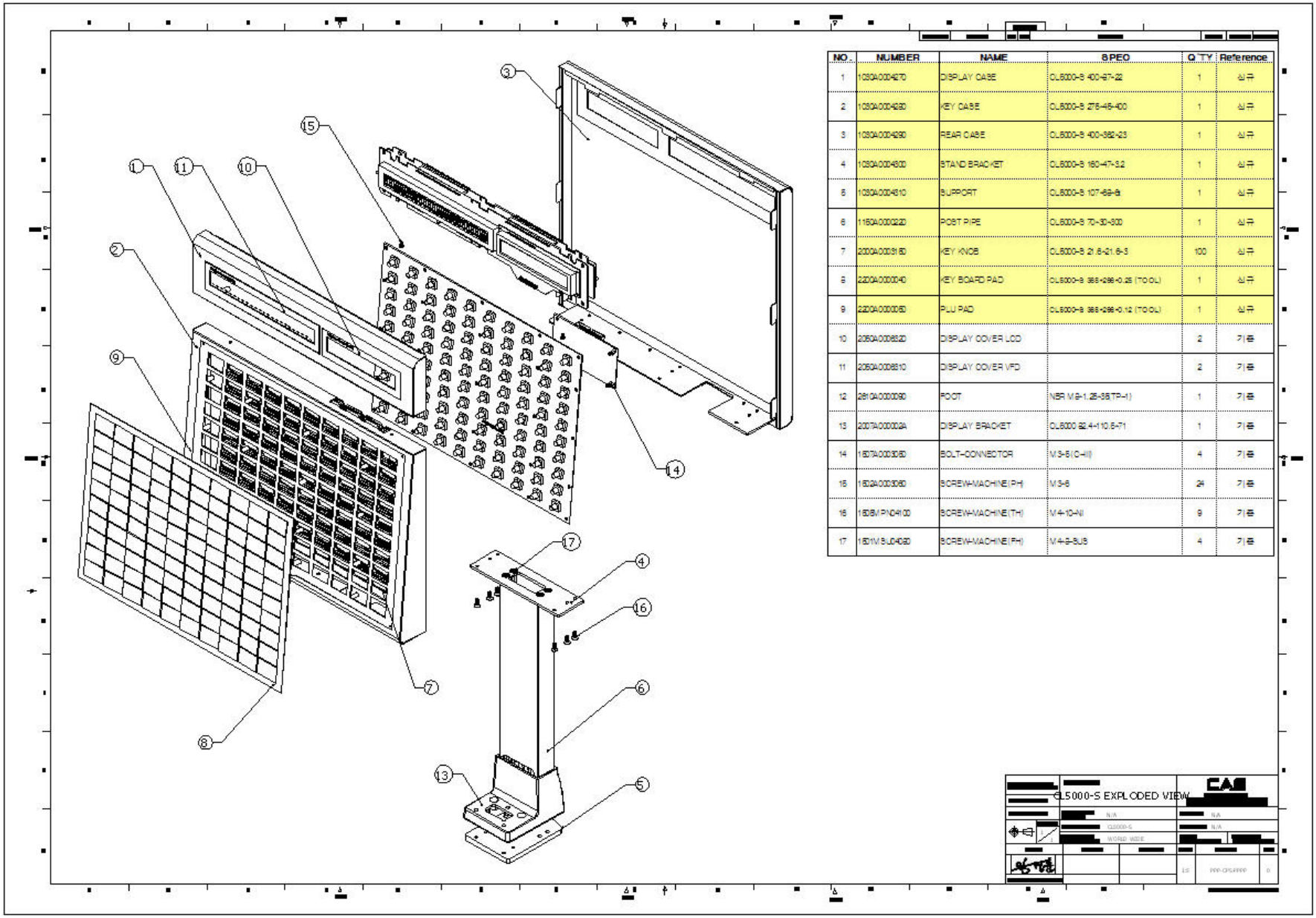


No.	Number	Description	Material	Spec	Q'ty
1	1000-A00-0230	TRAY GUIDE	SUS303	CL5000-H 10*20*463*1t	1
2	1000-A00-0231	TRAY LOWER HOLDER	SUS 303	CL5000-H 313*30*3t	1
3	1000-A00-0232	TRAY UPPER HOLDER	SUS 303	CL5000-H 313*30*3t	1
4	1210-A00-0100	SHAFT STOPER PLATE	SUS 303	CL5000-H @14*32	1
5	1210-A00-0101	SHAFT SPHER	SUS 303	CL5000-H @16*14	1
6		SHAFT SPRING			1
7	1540-MSU-0400	NUT(HEX)	SUS	M4*0.7	4
8	1501-MSU-0412	SCREW MACHINE(FH)	SUS	M4*12	4
9		FISH TRAY			1

9.17 Lan card

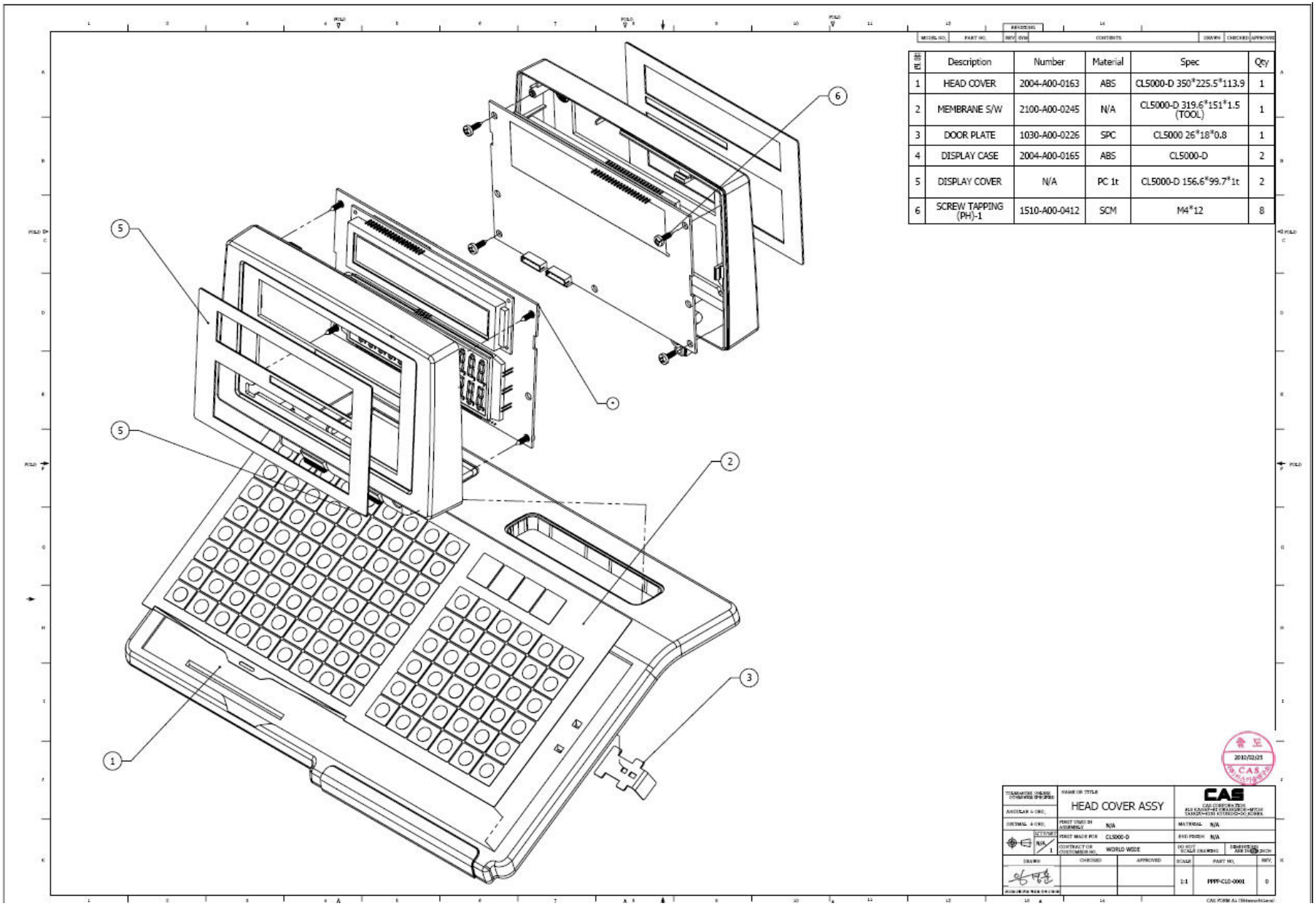

REVISIONS
MODEL NO.
PART NO.
REV
SYM
CONTENTS
DRAWN
CHECKED
APPROVED
Wireless LAN Card
Link
Rx / Tx
POWER
COL
TOLERANCES UNLESS OTHERWISE SPECIFIED
ANGULAR /N ORD.
DECIMAL /N ORD.
NAME OR TITLE
CF CARD PCB
FIRST USED IN ASSEMBLY
N/A
FIRST MADE FOR
N/A
CONTRACT OR CUSTOMEOR NO.
WORLD WIDE
QTY/SET
N/A
1
CAS
CAS CORPORATION
#19 KANAP-RI KWANG.EOK-MYON
YANG.JU-KUN KYUNGKI-DO.KOREA
MATERIAL
N/A
END FINISH
N/A
DO NOT SCALE DRAWING
DIMENSIONS ARE IN MM IN INCH
DRAWN
CHECKED
APPROVED
SCALE
1:1
PART NO.
REV.
N/A
FOLD
FOLD
CAS FORM A3 (297mmx420mm)

9.18 Self-service Type



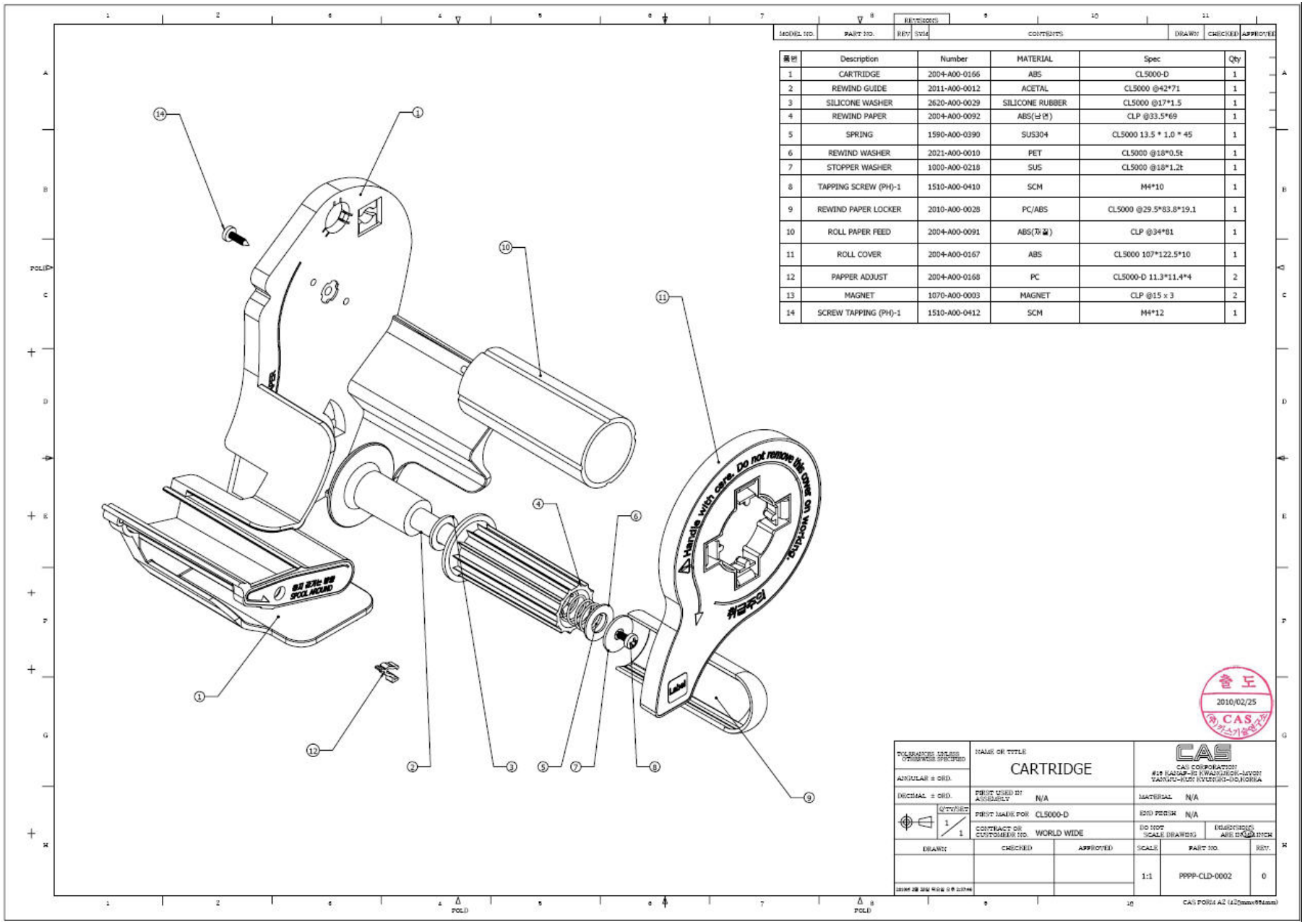
NO.	NUMBER	NAME	SPEC	Q'TY	Reference
1	1030A0004270	DISPLAY CASE	CL5000-S 400-267-22	1	실구
2	1030A0004280	KEY CASE	CL5000-S 276-46-400	1	실구
3	1030A0004290	REAR CASE	CL5000-S 400-382-23	1	실구
4	1030A0004300	STAND BRACKET	CL5000-S 160-47-3.2	1	실구
5	1030A0004310	SUPPORT	CL5000-S 107-69-9	1	실구
6	1150A0002220	POST PIPE	CL5000-S 70-30-900	1	실구
7	2000A0003150	KEY KNOB	CL5000-S 21.6-21.6-5	100	실구
8	2200A0000040	KEY BOARD PAD	CL5000-S 365+286+0.25 (TOOL)	1	실구
9	2200A0000050	PLU PAD	CL5000-S 365+286+0.12 (TOOL)	1	실구
10	2050A0006320	DISPLAY COVER LCD		2	기류
11	2050A0006310	DISPLAY COVER VFD		2	기류
12	2610A0000090	FOOT	NBR M8-1.25-35TP-H	1	기류
13	2007A000009A	DISPLAY BRACKET	CL5000 82.4-110.6-71	1	기류
14	1607A0003060	BOLT-CONNECTOR	M3-8 (C-H)	4	기류
15	1602A0003060	SCREW-MACHINE(PH)	M3-6	24	기류
16	1608M1PN04100	SCREW-MACHINE(TH)	M4-10-NI	9	기류
17	1601M3U04060	SCREW-MACHINE(FH)	M4-6-SUS	4	기류

9.19 Double Body Type – (Head cover A'ssy)



NO.	Description	Number	Material	Spec	Qty
1	HEAD COVER	2004-A00-0163	ABS	CL5000-D 350*225.5*113.9	1
2	MEMBRANE S/W	2100-A00-0245	N/A	CL5000-D 319.6*151*1.5 (TOOL)	1
3	DOOR PLATE	1030-A00-0226	SPC	CL5000 26*18*0.8	1
4	DISPLAY CASE	2004-A00-0165	ABS	CL5000-D	2
5	DISPLAY COVER	N/A	PC 1t	CL5000-D 156.6*99.7*1t	2
6	SCREW TAPPING (PH)-1	1510-A00-0412	SCM	M4*12	8

9.20 Double Body Type – (Cartridge A'ssy)



품번	Description	Number	MATERIAL	Spec	Qty
1	CARTRIDGE	2004-A00-0166	ABS	CL5000-D	1
2	REWIND GUIDE	2011-A00-0012	ACETAL	CL5000 @42*71	1
3	SILICONE WASHER	2620-A00-0029	SILICONE RUBBER	CL5000 @17*1.5	1
4	REWIND PAPER	2004-A00-0092	ABS(남연)	CLP @33.5*69	1
5	SPRING	1590-A00-0390	SUS304	CL5000 13.5 * 1.0 * 45	1
6	REWIND WASHER	2021-A00-0010	PET	CL5000 @18*0.5t	1
7	STOPPER WASHER	1000-A00-0218	SUS	CL5000 @18*1.2t	1
8	TAPPING SCREW (PH)-1	1510-A00-0410	SCM	M4*10	1
9	REWIND PAPER LOCKER	2010-A00-0028	PC/ABS	CL5000 @29.5*83.8*19.1	1
10	ROLL PAPER FEED	2004-A00-0091	ABS(자연)	CLP @34*81	1
11	ROLL COVER	2004-A00-0167	ABS	CL5000 107*122.5*10	1
12	PAPPER ADJUST	2004-A00-0168	PC	CL5000-D 11.3*11.4*4	2
13	MAGNET	1070-A00-0003	MAGNET	CLP @15 x 3	2
14	SCREW TAPPING (PH)-1	1510-A00-0412	SCM	M4*12	1

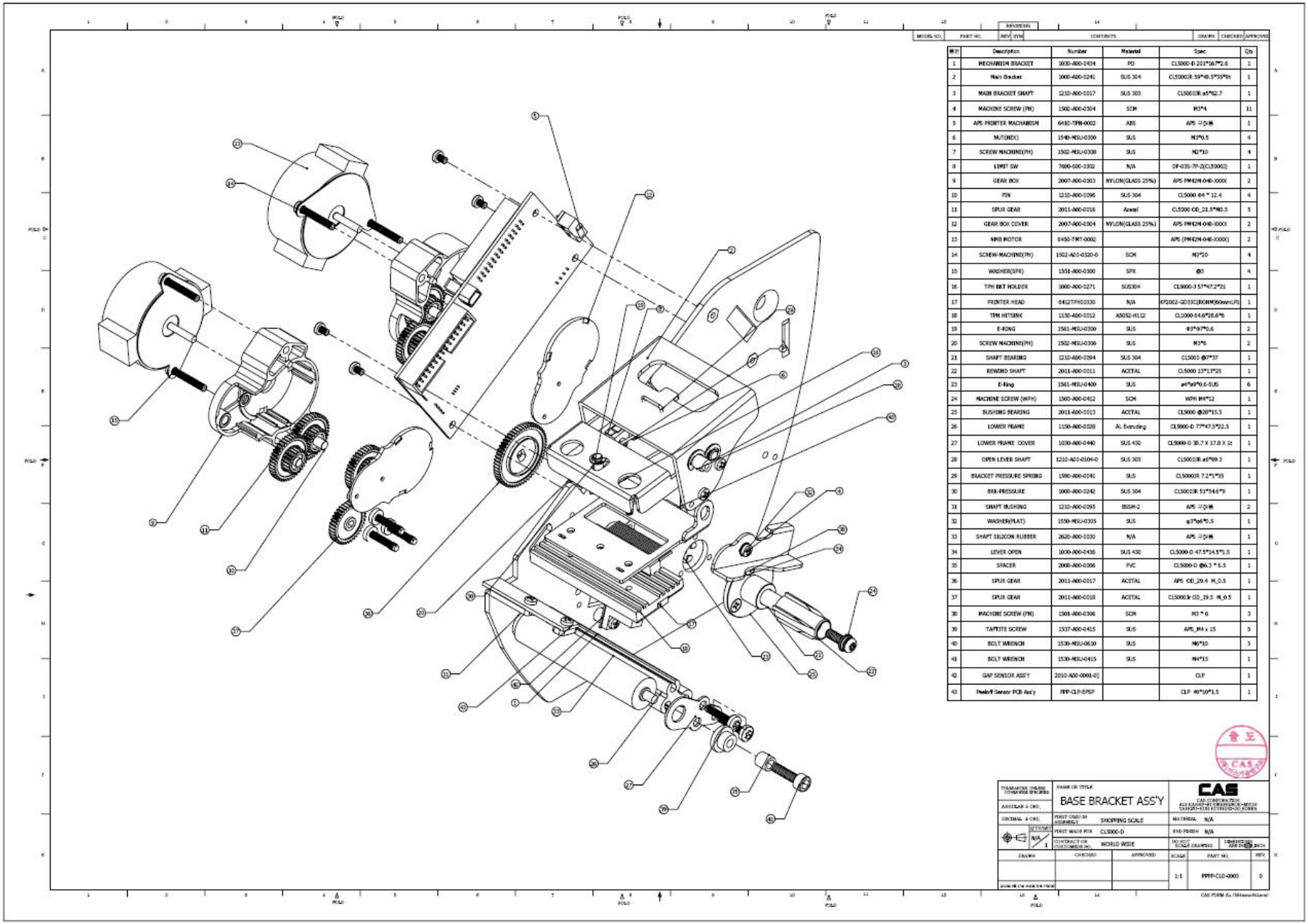
MODEL NO. | PART NO. | REVISIONS REV. | SYM. | CONTENTS | DRAWN | CHECKED | APPROVED

출도 2010/02/25 (주)캐스기술연구소

TOLERANCES UNLESS OTHERWISE SPECIFIED	NAME OR TITLE: CARTRIDGE		CAS CORPORATION #18 KAIFAF-RI KWANGJIGON-MYON TAEGU-KUN KYUNGSI-DO,KOREA	
ANGULAR ± ORD.				
DECIMAL ± ORD.	FIRST USED IN ASSEMBLY: N/A		MATERIAL: N/A	
QTY/SET: 1 / 1	FIRST MADE FOR: CL5000-D		END FINISH: N/A	
	CONTRACT OR CUSTOMER NO.: WORLD WIDE		DO NOT SCALE DRAWING	DIMENSIONS ARE IN MM & INCH
DRAWN	CHECKED	APPROVED	SCALE: 1:1	PART NO.: PPPP-CLD-0002 REV.: 0

CAS FORM A2 (420mm*594mm)

9.21 Double Body Type – (Base bracket A'ssy)

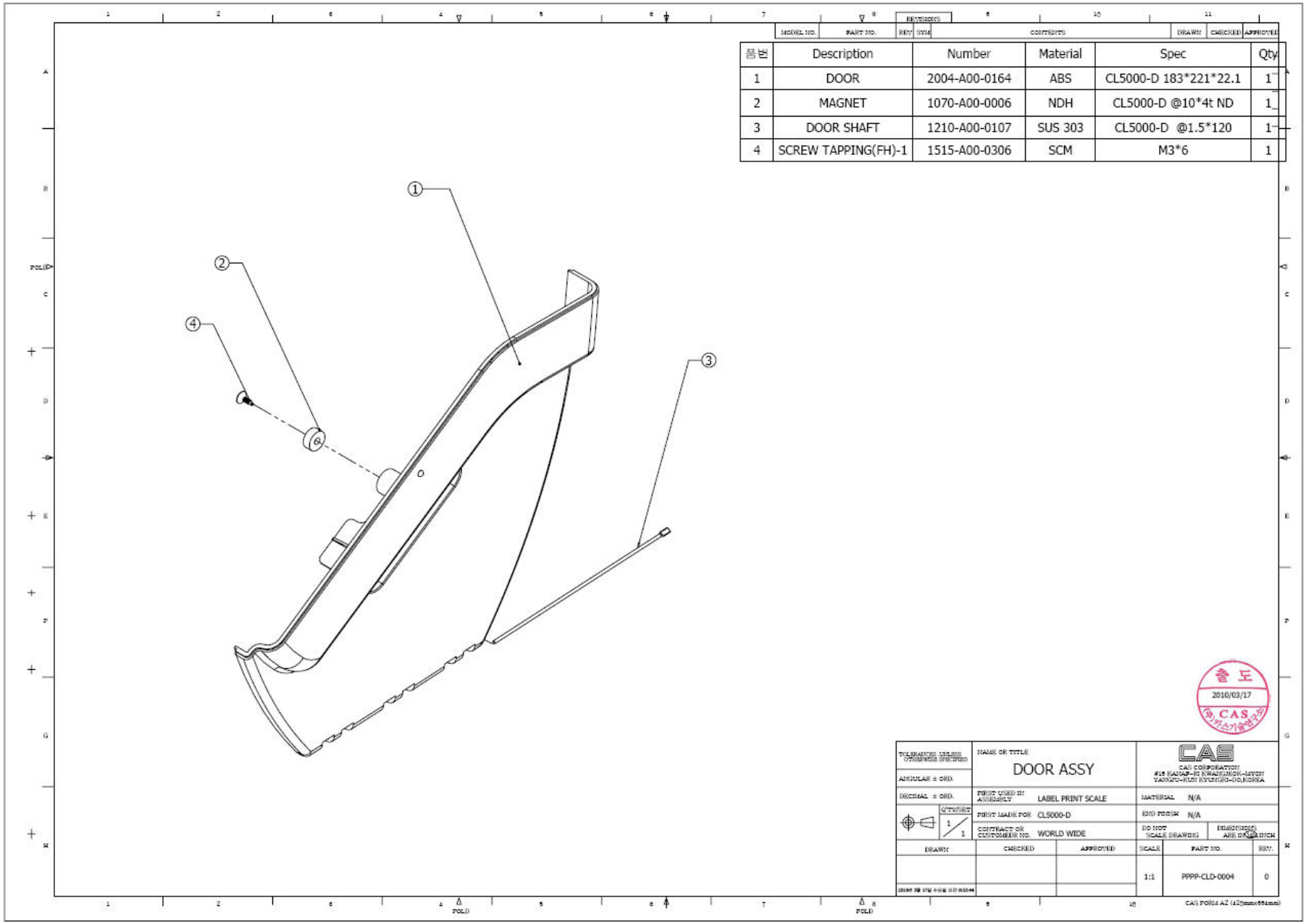


NO	Description	Number	Material	Spec	Qty
1	MECHANISM BRACKET	1030-A00-0434	PO	CL5000-D 201*167*2.6	1
2	Main Bracket	1000-A00-0241	SUS 304	CL5000R 59*48.5*33*t	1
3	MAIN BRACKET SHAFT	1210-A00-0017	SUS 303	CL5003R ø5*62.7	1
4	MACHINE SCREW (PH)	1502-A00-0304	SCM	M3*4	11
5	APS PRINTER MACHANISM	6410-TPH-0002	ABS	APS 구입품	1
6	NUT(HEX)	1540-MSU-0300	SUS	M3*0.5	4
7	SCREW MACHINE(PH)	1502-MSU-0308	SUS	M2*10	4
8	LIMIT SW	7000-S00-0302	N/A	DF-035-7P-2(CL5000)	1
9	GEAR BOX	2007-A00-0003	NYLON(GLASS 25%)	APS PM42M-048-3000X	2
10	PIN	1210-A00-0096	SUS 304	CL5000 ø4 * 12.4	4
11	SPUR GEAR	2011-A00-0016	Acetal	CL5000 OD_21.5*M0.5	5
12	GEAR BOX COVER	2007-A00-0004	NYLON(GLASS 25%)	APS PM42M-048-3000X	2
13	MMB MOTOR	6450-TMT-0002		APS (PM42M-048-3000X)	2
14	SCREW-MACHINE(PH)	1502-A00-0320-0	SCM	M3*20	4
15	WASHER(SPR)	1551-A00-0300	SPR	ø3	4
16	TPH SET HOLDER	1000-A00-0271	SUS304	CL5000-3 57*47.2*21	1
17	PRINTER HEAD	6412TPH0330	N/A	KF2002-GD33C(ROHM)60mm(LP)	1
18	TPH HITSINK	1150-A00-0012	A5032-H112	CL1000 64.6*28.6*6	1
19	E-RING	1561-MSU-0300	SUS	ø3*ø7*0.6	2
20	SCREW MACHINE(PH)	1502-MSU-0306	SUS	M3*6	2
21	SHAFT BEARING	1210-A00-0094	SUS 304	CL5003 ø7*37	1
22	REWIND SHAFT	2011-A00-0011	ACETAL	CL5000 13*13*25	1
23	E-Ring	1561-MSU-0400	SUS	ø4*ø9*0.6-SUS	6
24	MACHINE SCREW (WPH)	1503-A00-0412	SCM	WPH M4*12	1
25	BUSHING BEARING	2011-A00-0013	ACETAL	CL5000 ø20*15.3	1
26	LOWER FRAME	1150-A00-0228	Al. Extruding	CL5000-D 77*47.5*22.5	1
27	LOWER FRAME COVER	1030-A00-0440	SUS 430	CL5000-D 38.7 X 17.8 X 1t	1
28	OPEN LEVER SHAFT	1210-A00-0104-0	SUS 303	CL5003R ø5*69.3	1
29	BRACKET PRESSURE SPRING	1590-A00-0241	SUS	CL5003R 7.2*1*35	1
30	BRK-PRESSURE	1000-A00-0242	SUS 304	CL5003R 51*54.6*9	1
31	SHAFT BUSHING	1210-A00-0295	BSSM-2	APS 구입품	2
32	WASHER(FLAT)	1530-MSU-0305	SUS	ø3*ø6*0.5	1
33	SHAFT SILICON RUBBER	2620-A00-0030	N/A	APS 구입품	1
34	LEVER OPEN	1030-A00-0436	SUS 430	CL5000-D 47.5*14.5*1.5	1
35	SPACER	2008-A00-0306	PVC	CL5000-D ø6.3 * 6.5	1
36	SPUR GEAR	2011-A00-0017	ACETAL	APS OD_29.4 M_0.5	1
37	SPUR GEAR	2011-A00-0018	ACETAL	CL5003-R OD_19.5 M_0.5	1
38	MACHINE SCREW (PH)	1501-A00-0306	SCM	M3 * 6	3
39	TAPTITE SCREW	1537-A00-0415	SUS	APS_M4 x 15	5
40	BOLT WRENCH	1530-MSU-0610	SUS	M6*10	3
41	BOLT WRENCH	1530-MSU-0415	SUS	M4*15	1
42	GAP SENSOR ASS'Y	2010-A00-0001-01		CLP	1
43	Peeloff Sensor PCB Ass'y	PPP-CLP-EPSP		CLP 49*10*1.5	1

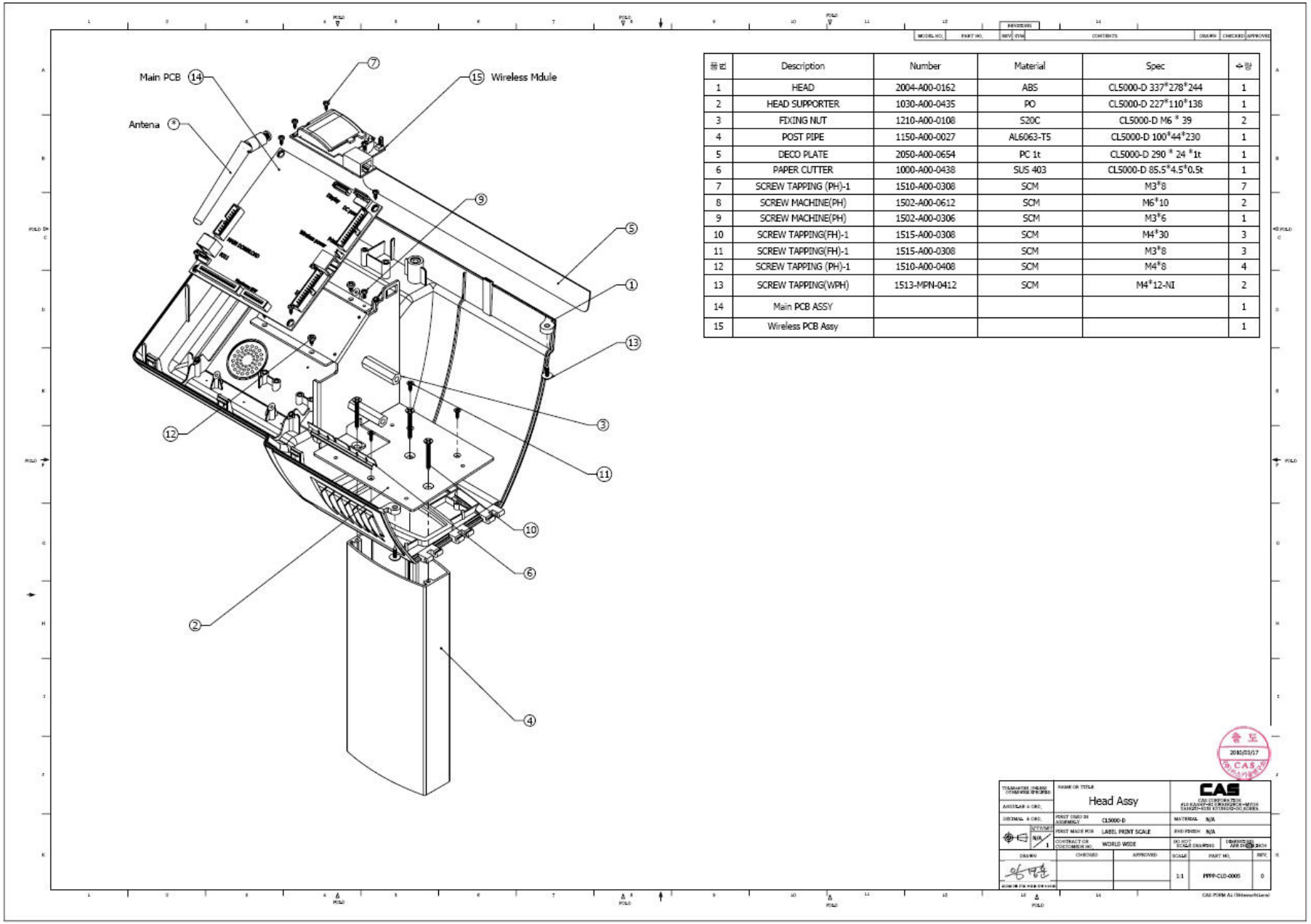
BASE BRACKET ASS'Y

CAS

9.22 Double Body Type – (Door A'ssy)



9.22 Double Body Type – (Head A'ssy)



품번	Description	Number	Material	Spec	수량
1	HEAD	2004-A00-0162	ABS	CL5000-D 337*278*244	1
2	HEAD SUPPORTER	1030-A00-0435	PO	CL5000-D 227*110*138	1
3	FIXING NUT	1210-A00-0108	S20C	CL5000-D M6 * 39	2
4	POST PIPE	1150-A00-0027	AL6063-T5	CL5000-D 100*44*230	1
5	DECO PLATE	2050-A00-0654	PC 1t	CL5000-D 290 * 24 *1t	1
6	PAPER CUTTER	1000-A00-0438	SUS 403	CL5000-D 85.5*4.5*0.5t	1
7	SCREW TAPPING (PH)-1	1510-A00-0308	SCM	M3*8	7
8	SCREW MACHINE(PH)	1502-A00-0612	SCM	M6*10	2
9	SCREW MACHINE(PH)	1502-A00-0306	SCM	M3*6	1
10	SCREW TAPPING(FH)-1	1515-A00-0308	SCM	M4*30	3
11	SCREW TAPPING(FH)-1	1515-A00-0308	SCM	M3*8	3
12	SCREW TAPPING (PH)-1	1510-A00-0408	SCM	M4*8	4
13	SCREW TAPPING(WPH)	1513-MPN-0412	SCM	M4*12-NI	2
14	Main PCB ASSY				1
15	Wireless PCB Assy				1

Head Assy

CAS

CL5000-D

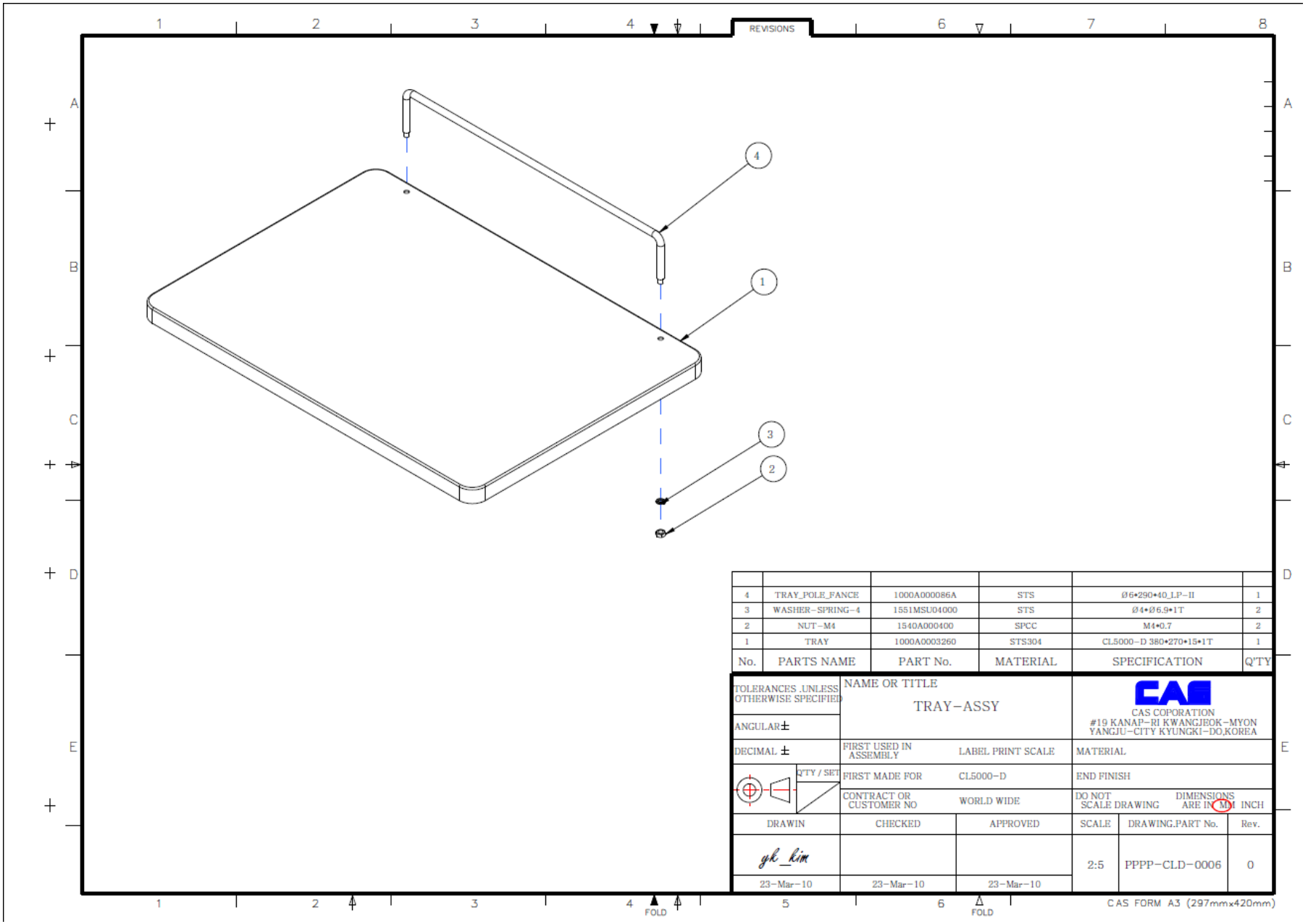
LABEL PRINT SCALE

WORLD WIDE

N/A

PPPP-CLD-0005

9.23 Double Body Type – (Tray A'ssy)



No.	PARTS NAME	PART No.	MATERIAL	SPECIFICATION	Q'TY
4	TRAY_POLE_FANCE	1000A000086A	STS	Ø6•290•40_LP–II	1
3	WASHER–SPRING–4	1551MSU04000	STS	Ø4•Ø6.9•1T	2
2	NUT–M4	1540A000400	SPCC	M4•0.7	2
1	TRAY	1000A0003260	STS304	CL5000–D 380•270•15•1T	1

TOLERANCES :UNLESS OTHERWISE SPECIFIED
ANGULAR ±
DECIMAL ±
Q'TY / SET

NAME OR TITLE: TRAY–ASSY

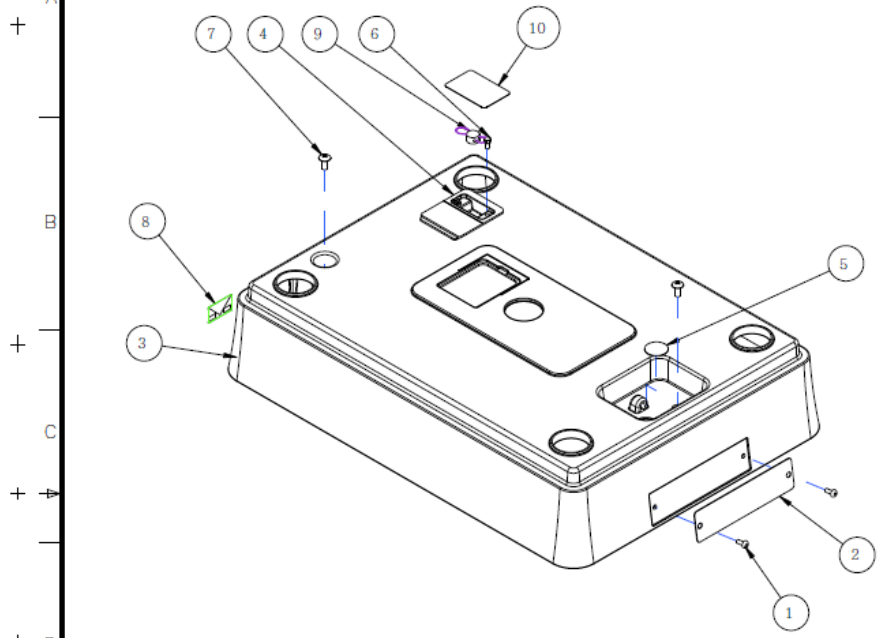
CAS COPORATION
#19 KANAP–RI KWANGJEOK–MYON
YANGJU–CITY KYUNGKI–DO,KOREA

FIRST USED IN ASSEMBLY | LABEL PRINT SCALE | MATERIAL
FIRST MADE FOR: CL5000–D | END FINISH
CONTRACT OR CUSTOMER NO | WORLD WIDE | DO NOT SCALE DRAWING | DIMENSIONS ARE IN MM INCH

DRAWIN	CHECKED	APPROVED	SCALE	DRAWING.PART No.	Rev.
gk_kim			2:5	PPPP–CLD–0006	0
23–Mar–10	23–Mar–10	23–Mar–10			

CAS FORM A3 (297mm×420mm)

9.24 Double Body Type – (Upper A'ssy)



REVISIONS

No.	PART'S NAME	PART No.	MATERIAL	SPECIFICATION	Q'TY
10	SEALING-STICKER	9020OML00010		유멍 CAL ,붕인지	1
9	SEALING	9900A0000010	pb	Ø10*5.6	1
8	STICKER-POWER	9020A0000090		S-2000 (ON/OFF)	1
7	M-SCREW-TH-M4-10	1505A0004100	SPCC	M4*10	2
6	BOLT-SEALING	1265A0000010	Cu	M3*9(팽둥,HEAD 3mm부쌈)	1
5	WATER-LEVEL-GAGE-COVER	2010A000026		GAGE COVER(POSCALE)	1
4	CAL-COVER	2004A0001700	ABS(KUMHO,HFA707-V0)	CL5000-D 54.4*43.5	1
3	UPPER_CASE	2004A0001590	ABS(KUMHO,HFA707-V0)	CL5000-D 395*285*85	1
2	SPEC-PLATE	1810CL000332		CL5000 (행공), ENGLISH	1
1	RIVET	1563A0003080		@3.2*8	2

TOLERANCES ,UNLESS OTHERWISE SPECIFIED
ANGULAR ±
DECIMAL ±
QTY / SET 1 / 1

NAME OR TITLE: UPPER-ASSY

FIRST USED IN ASSEMBLY | LABEL PRINT SCALE
FIRST MADE FOR | CL5000-D
CONTRACT OR CUSTOMER NO | WORLD WIDE

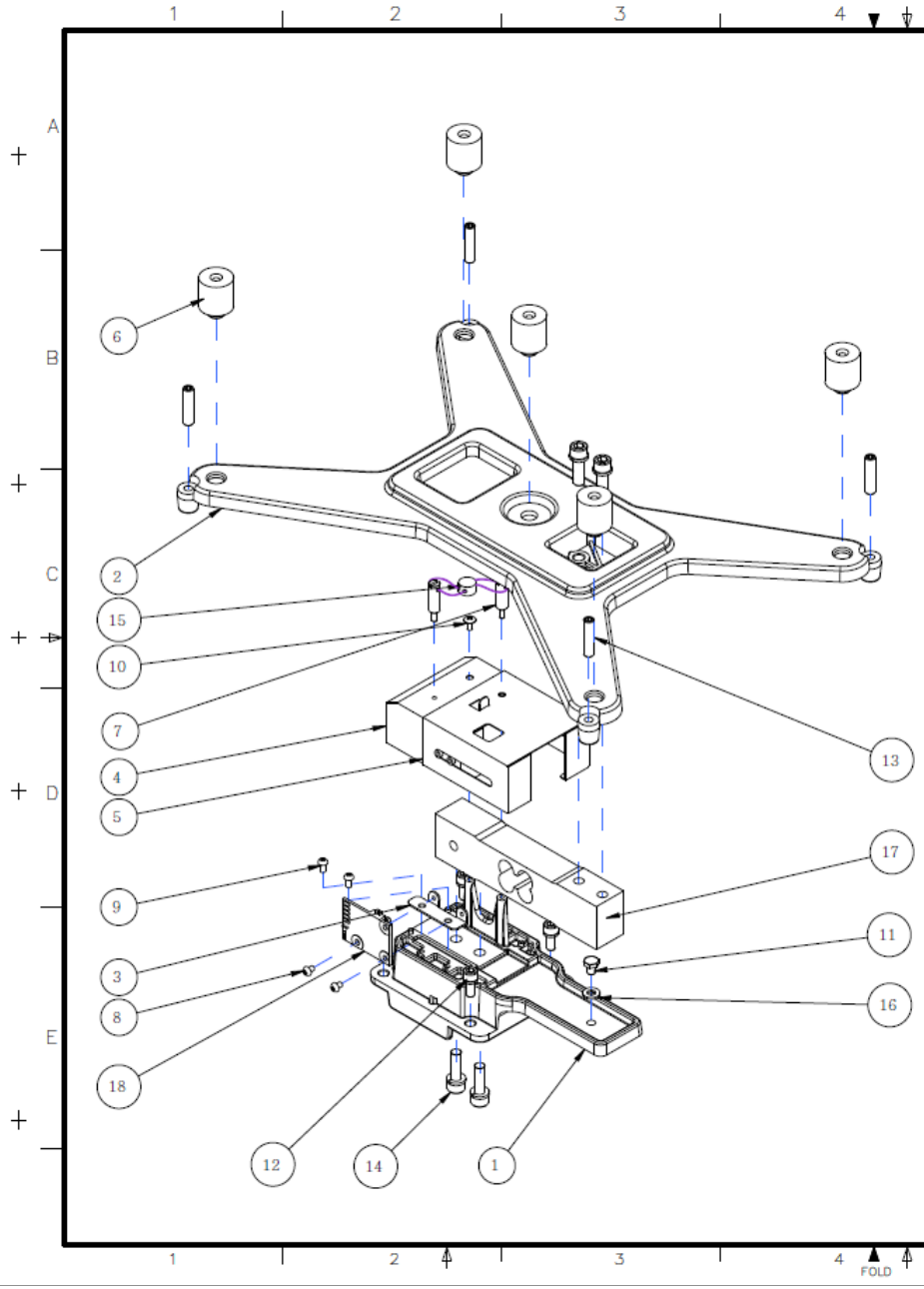
CAS COPORATION
#19 KANAP-RI KWANGJEOK-MYON
YANGJU-CITY KYUNGKI-DO,KOREA

MATERIAL
END FINISH
DO NOT SCALE DRAWING | DIMENSIONS ARE IN MM INCH

DRAWIN	CHECKED	APPROVED	SCALE	DRAWING.PART No.	Rev.
yk_kim			3:10	PPPP-CLD-0007	0
23-Mar-10	23-Mar-10	23-Mar-10			

CAS FORM A3 (297mmx420mm)

9.25 Double Body Type – (Platform A'ssy)



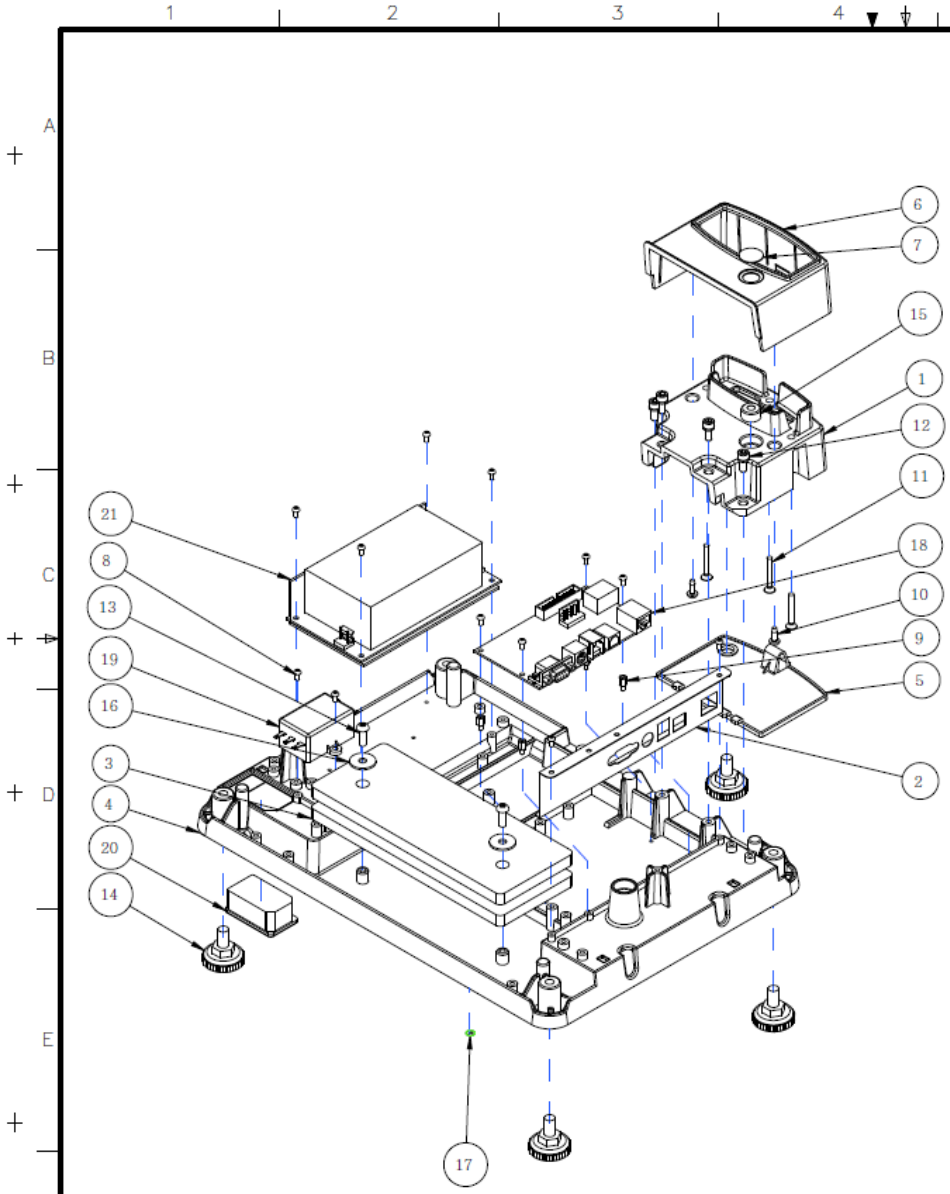
No.	PARTS NAME	PART No.	MATERIAL	SPECIFICATION	Q'TY
18	AD-BOARD				1
17	TPN-15L				1
16	WASHER-FLAT-5-10	1550A0005100	SPCC	∮5*∮10*1	1
15	SEALING	9900A0000010	pb	Ø10*5.6	1
14	W-BOLT-WA-M6-20	1535MSU06200	STS	M6*25-SUS	4
13	W-BOLT-ST-M6-25	1532MSU06250	STS	M6*25-SUS	4
12	W-BOLT-WA-M5-12	1532MSU05120	STS	M5*12-SUS	4
11	LIMIT-BOLT-M5-8_5	1261A0000080	SPCC	M5*0.8*8.5(Zn백색,15K)(AP)외주	1
10	M-SCREW-TH-M3-6	1505MPN03060	SPCC	M3*6-NI	1
9	M-SCREW-PH-M3-6	1502A0003060	SPCC	M3*6	2
8	M-SCREW-PH-M3-4	1502A0003040	SPCC	M3*4	2
7	BOLT-SEALING_M3-26	1265A000031A	Cu	M3*26(NT-200, 201A)특동	2
6	PLATFORM-RUBBER	2600A0001030	NBR	CL5000-D Ø20*20	5
5	LOADCELL-CASE	1030A0004410	SPCC(1.0T)	CL5000-D 68.5*65.5*33	1
4	AD-CASE	1030A0004420	SPCC(1.0T)	CL5000-D 64*60.5*32	1
3	AD-BRACKET	1030A0004450	SPCC(1.0T)	CL5000-D 39*11*9	1
2	UPPER-PLATFORM	1100A0001110	ALDC12	CL5000-D 336.5*240*24	1
1	LOWER-PLATFORM	1100A0001120	ALDC12	CL5000-D 168*80*68	1

TOLERANCES .UNLESS OTHERWISE SPECIFIED	NAME OR TITLE: PLATFORM-ASSY		CAS COPORATION #19 KANAP-RI KWANGJEOK-MYON YANGJU-CITY KYUNGKI-DO,KOREA
ANGULAR ±			
DECIMAL ±	FIRST USED IN ASSEMBLY	LABEL PRINT SCALE	MATERIAL
Q'TY / SET 1 / 1	FIRST MADE FOR	CL5000-D	END FINISH
	CONTRACT OR CUSTOMER NO	WORLD WIDE	DO NOT SCALE DRAWING; DIMENSIONS ARE IN MM INCH

DRAWIN	CHECKED	APPROVED	SCALE	DRAWING.PART No.	Rev.
gk_kim			2:5	PPPP-CLD-0008	0
23-Mar-10	23-Mar-10	23-Mar-10			

CAS FORM A3 (297mmx420mm)

9.26 Double Body Type – (Body A'ssy)



No.	PARTS NAME	PART No.	MATERIAL	SPECIFICATION	Q'TY
21	SMPS-120W				1
20	POWER_HOLDER-ASSY				1
19	NOISE-FILTER				1
18	IO_PCB_ASSY-CL5000D				1
17	STICKER-GROUND	90200ML00010		유럽 CAL ,불인지	1
16	WASHER-FLAT-6-20	1550A0006200	SPCC	φ6*φ20*1.5	2
15	WATER-LAVEL-GAGE	2022A0000041		φ14.9*8 (S-2000) 상보	1
14	FOOT-EP-M8	2615A000001A	SUS+NBR	SUS M8*25 (BW-LOW) (NUT제외)	5
13	M-SCREW-PH-M5-15	1502A0005150	SPCC	M5*15	2
12	W-BOLT-WA-M5-12	1532MSU05120	STS	M5*12-SUS	4
11	T1-SCREW-FH-M4-30	1515A0004300	SPCC	M4*30	3
10	T2-SCREW-PH-M4-12	1512A0004120	SPCC	M4*12	2
9	C-BOLT-M3-7	1507A0003070	SUM	M3*7(H)*6(D)	4
8	M-SCREW-PH-M3-6	1502A0003060	SPCC	M3*6	12
7	WATER-LEVEL-GAGE-COVER	2010A000026		GAGE COVER(POSCALE)	1
6	SUPPORT-COVER	2004A0001600	ABS(KUMHO,HFA707-V0)	CL5000-D 92*123*48	1
5	SUPPORT-CABLE-COVER	2004A0001610	ABS(KUMHO,HFA707-V0)	CL5000-D 86.5*113*19.5	1
4	BODY	1100A0000990	ALDC12	CL5000-D 389*279*68	1
3	WEIGHT-BALANCE	1030A0004430	S45C	CL5000-D 205*80*10	2
2	IO-COVER	1030A0004440	SPCC	CL5000-D 197*42*24	1
1	SUPPORT	1100A0001130	ALDC12	CL5000-D 113*112.5*58.5	1

TOLERANCES .UNLESS OTHERWISE SPECIFIED	NAME OR TITLE: BODY-ASSY		CAS COPORATION #19 KANAP-RI KWANGJEOK-MYON YANGJU-CITY KYUNGKI-DO,KOREA		
ANGULAR ±					
DECIMAL ±	FIRST USED IN ASSEMBLY	LABEL PRINT SCALE	MATERIAL		
Q'TY / SET 1 / 1	FIRST MADE FOR	CL5000-D	END FINISH		
	CONTRACT OR CUSTOMER NO	WORLD WIDE	DO NOT SCALE DRAWING	DIMENSIONS ARE IN MM INCH	
DRAWIN	CHECKED	APPROVED	SCALE	DRAWING.PART No.	Rev.
yk_kim			3:10	PPPP-CLD-0009	0
23-Mar-10	23-Mar-10	23-Mar-10			

CAS FORM A3 (297mmx420mm)

10. Part List

10.1 Electronic

10.2 Mechnical

11. Revision

11-Mar, 2005

-. Add Sealing Method

-. Adjust Chapter number

15-Apr, 2010

- Add CL5500-D Type